

Susan E. Farley, Esq  
HESLIN ROTHENBERG FARLEY & MESITI P.C.  
5 Columbia Circle  
Albany, New York 12203  
Telephone: (518) 452-5600  
Facsimile: (518) 452-5579

CV 06ED5910

IN CLERK'S OFFICE  
U.S. DISTRICT COURT, E.D.N.Y.

★ OCT 31 2006 ★

BROOKLYN OFFICE

BIANCO, J.

Attorneys for Plaintiff,  
Schonbeck Worldwide Lighting Inc.

UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NEW YORK

BOYLE, M.J.

SCHONBEK WORLDWIDE LIGHTING INC., )  
a New York Corporation, )  
Plaintiff, )  
-vs- )  
THE HOUSE OF CHANDELIERS & CRYSTAL, )  
a Texas Corporation, )  
Defendant. )

JURY TRIAL DEMANDED  
Civil Action No.:

COMPLAINT

Plaintiff, SCHONBEK WORLDWIDE LIGHTING INC. ("SCHONBEK"), by and through its undersigned attorneys, alleges:

THE PARTIES

1. Plaintiff, SCHONBEK, is a corporation organized under the laws of the State of New York having its principal place of business at 61 Industrial Boulevard, Plattsburgh, New York 12901-1908.

2. Upon information and belief, Defendant THE HOUSE OF CHANDELIERS & CRYSTAL located in Texas has its principal place of business located at 3210 Fondren Road, Houston, Texas 77063 (“HC&C TEXAS”).

**JURISDICTION AND VENUE**

3. This is an action for patent infringement arising under the patent laws of the United States as set forth in Title 35 of the United States Code Section 271, *et seq.*, and for claims of trademark infringement, and for copyright infringement under the Copyright Act of 1976 (the “Copyright Act”), 17 U.S.C. §§101 *et seq.*, and for related New York statutory and common law claims of deceptive acts and practices, and unfair competition.

4. This Court has jurisdiction under 15 U.S.C. §§1117, 1121 and 1125(a), 28 U.S.C. §§1331, 1332, and 1338(a).

5. This Court has jurisdiction over SCHONBEK’s related state law claims pursuant to 28 U.S.C. §1338 and 1367.

6. Venue is proper in this Court under 28 U.S.C. §§1391(b), (c), and 1400(a), (b).

7. Upon information and investigation, this Court has personal jurisdiction over Defendants under New York’s “long arm” statute by virtue of Defendants transacting and doing business in both the State of New York and this judicial district.

8. Upon investigation and information, Defendant HC&C solicited the sale of lighting fixtures imported from Egypt in New York and this judicial districts by distributing letters and catalogs containing approximately twenty-seven photographs protected by Schonbek copyrights. At least one letter and catalog was sent to one of Schonbek’s sales representatives located in this judicial district, namely Searingtown, New York.

9. Upon investigation and information a substantial part of the events or omissions giving rise to the claim occurred or a substantial part of property that is the subject of the action is situated in this judicial district.

10. Upon investigation and information, Defendants or their agent resides or may be found in this judicial district.

### **BACKGROUND**

11. Plaintiff, SCHNOBEK, designs and sells lighting fixtures.

#### **A. SCHONBEK's Patents**

##### **(1) U.S. Design Patent No. 335,362**

12. On May 4, 1993, U.S. Design Patent No. 335,362 ("the '362 Patent") issued for a design entitled "LIGHTING FIXTURE NECK", listing Andrew Schonbek as inventor. The '362 Patent issued from an application filed on July 3, 1991. A true and correct copy of the '362 Patent is attached hereto and incorporated herein as **Exhibit "A"**.

13. The '392 Patent is assigned to SCHONBEK.

14. SCHONBEK manufactures and sells a number of commercial embodiments incorporating the patented design of the '362 Patent.

##### **(2) U.S. Design Patent No. 336,537**

15. On June 15, 1993, U.S. Design Patent No. 336,537 ("the '537 Patent") issued for a design entitled "LIGHTING FIXTURE NECK", listing Andrew Schonbek as the inventor. The '537 Patent issued from an application filed on July 3, 1991. A true and correct copy of the '537 Patent is attached hereto and incorporated herein as **Exhibit "B"**.

16. The '537 Patent is assigned to SCHONBEK.

17. SCHONBEK manufactures and sells a number of commercial embodiments incorporating the patented design of the '537 Patent.

(3) U.S. Utility Patent No. 5,109,325

18. On April 28, 1992, U.S. Utility Patent No. 5,109,325 ("the '325 Patent") issued for an invention entitled "FASTENING DEVICE FOR CHANDELIER TRIMMINGS", listing Georg Bayer and Arnold Schonbek as the inventors. The '325 Utility Patent issued from an application filed on December 21, 1990. A true and correct copy of the '325 Patent is attached hereto and incorporated herein as **Exhibit "C"**.

19. The '325 Patent is assigned to SCHONBEK.

20. SCHONBEK manufactures and sells a number of commercial embodiments incorporating the patented component protected by the '325 Patent.

(4) U.S. Utility Patent No. 5,222,805

21. On June 29, 1993, U.S. Utility Patent No. 5,222,805 ("the '805 Patent") issued for an invention entitled "PRECISION CHANDELIER FRAME", listing Andrew J Schonbek, Georg Bayer, Arnold Schonbek and Daniel A. Tucker as the inventors. The '805 Patent issued from an application filed on December 24, 1991. A true and correct copy of the '805 Patent is attached hereto and incorporated herein as **Exhibit "D"**.

22. The '805 Patent is assigned to SCHONBEK.

23. SCHONBEK manufactures and sells commercial embodiments incorporating the patented component protected by the '805 Patent.

(5) U.S. Utility Patent 5,460,269

24. On October 24, 1995, U.S. Utility Patent No. 5,460,269 ("the '269 Patent") issued for an invention entitled "SKIN PACKAGING", listing George Bayer as the inventor.

The '269 Patent issued from an application filed on February 18, 1993. A true and correct copy of the '269 Patent is attached hereto and incorporated herein as **Exhibit "E"**.

25. The '269 Patent is assigned to SCHONBEK.
26. SCHONBEK manufactures and sells a number of commercial embodiments incorporating the patented component protected by the '269 Patent.

(6) U.S. Utility Patent No. 5,873,652

27. On February 23, 1999, U.S. Utility Patent No. 5,873,652 ("the '652 Patent") issued for an invention entitled "CHANDELIER ASSEMBLY AND CHANDELIER COMPONENTS FOR GLASS ARM CONFIGURATIONS", listing Georg Bayer and Andrew M. Schuyler as the inventors. The '652 Patent issued from an application filed on July 11, 1996. A true and correct copy of the '652 Patent is attached hereto and incorporated herein as **Exhibit "F"**.

28. The '652 Patent is assigned to SCHONBEK.
29. SCHONBEK manufactures and sells a number of commercial embodiments incorporating the patented component protected by the '652 Patent.

Definition of "SCHONBEK Patents"

30. Definition of the "SCHONBEK Patents" hereinafter shall mean the '362, '537, '325, '805, '269 and '652 Patents are collectively referred to hereinafter as the "SCHONBEK Patents".

**B. SCHONBEK's Copyrights**

31. SCHONBEK is the owner of and holds and maintains U.S. Copyright Registrations for photographs and catalogs showing its unique lighting fixtures, including the following:

A. 1999 Catalog "The Well of Creativity Never Runs Dry" (271 Pages).

Copyright Registration No. VA 1-250-977. Annexed hereto and incorporated herein as **Exhibit "G."**

B. 2002 Catalog (334 Pages). U.S. Copyright Registration No. 1-266-219. Annexed hereto and incorporated herein as **Exhibit "H."**

32. Upon information and investigation, Defendant scanned and/or copied or directed the scanning and/or copying of a substantial number of photographs from the copyrighted works identified in paragraph 31, and distributed the same by mail throughout the United States to promote their infringing lighting fixtures.

**D. Defendant's Infringing Activities**

33. Upon information and belief, Defendant has imported, manufactured, offered to sell and sold lighting fixtures and lighting fixture components that infringe the SCHONBEK Patents, and has scanned, copied and distributed catalogs containing copyrighted photographs owned by SCHONBEK throughout the United States, including this judicial district.

34. Defendant is not an authorized dealer of SCHONBEK® lighting fixtures.

35. Upon information and belief, Defendant HC&C has sent letters, throughout the country including in New York and in this judicial district, offering to sell, selling and soliciting businesses to sell knock-offs of SCHONBEK® lighting fixtures and lighting fixture components that were manufactured in and imported from Egypt. An example of one such letter sent out by Defendant HC&C to a sales representative in this judicial district is attached hereto and incorporated herein as **Exhibit "I".**

36. With these letters, Defendant HC&C is distributing a catalog that includes at least twenty-seven actual Schonbek photographs that were scanned or directly copied or reproduced

from Schonbek's own marketing materials or website. A copy of this catalog containing Schonbek's copyrighted photographs some is attached hereto and incorporated herein as **Exhibit "J"**. Upon information and investigation, Defendant continues to import, offer for sale and sell infringing lighting fixtures from this catalog.

37. Upon information and belief, the importation, offering for sale and sale of knock-off SCHONBEK lighting fixtures, and the copying and distribution of copyrighted photographs of SCHONBEK lighting fixtures owned by SCHONBEK throughout the country and in New York and in this judicial district has caused and continues to cause lost sales, lost customers and damages to SCHONBEK.

38. Defendant's conduct of importing, marketing, offering for sale and selling knock-off lighting fixtures that infringe the SCHONBEK Patents, to promote and sell infringing lighting fixtures, and of copying and distributing copyrighted photographs of actual SCHONBEK lighting fixtures to promote and sell infringing lighting fixtures has been knowing and willful.

39. Upon investigation and information, Defendant derives substantial revenue from interstate commerce from its unlawful conduct.

40. Defendant's conduct has caused damage to SCHONBEK in New York and in the Eastern District of New York.

**FIRST CAUSE OF ACTION**  
**INFRINGEMENT OF U.S. DESIGN PATENT NO. 335,362**

41. Plaintiff SCHONBEK realleges each and every allegation set forth in paragraphs 1 through 40 above, and incorporates them herein by reference.

42. Defendant has, at least, imported, offered for sale and/or sold lighting fixtures throughout the United States that infringe the claim of the '362 Patent, and will continue such infringement unless enjoined by this Court. The infringing lighting fixtures, identified by product numbers and page number in the catalog distributed by the Defendant (Exhibit J), are listed in chart attached hereto as **Exhibit "K"** to this Complaint.

43. As a result of Defendant's acts, SCHONBEK has been damaged and will continue to be damaged.

44. Defendant's infringement of the '362 Patent has been knowing and willful.

45. Defendant's infringement of the '362 Patent has damaged SCHONBEK in an amount that is unknown and cannot at the present time be fully ascertained.

46. Unless enjoined by this court, Defendant will continue to infringe Plaintiff's patent rights causing irreparable injury.

**SECOND CAUSE OF ACTION**  
**INFRINGEMENT OF U.S. DESIGN PATENT NO. 336,537**

47. Plaintiff SCHONBEK realleges each and every allegation set forth in paragraphs 1 through 46 above, and incorporates them herein by reference.

48. Defendant has, at least, imported, offered for sale and/or sold lighting fixtures throughout the United States that infringe the claim of the '537 Patent, and will continue such infringement unless enjoined by this Court. The infringing lighting fixtures, identified by product numbers and page number in the catalog distributed by the Defendant (Exhibit J), are listed in chart attached hereto as **Exhibit "K"** to this Complaint.

49. As a result of Defendant's acts, SCHONBEK has been damaged and will continue to be damaged.

50. Defendant's infringement of the '537 Patent has been knowing and willful.

51. Defendant's infringement of the '537 Patent has damaged SCHONBEK in an amount that is unknown and cannot at the present time be fully ascertained.

52. Unless enjoined by this court, Defendant will continue to infringe Plaintiff's patent rights causing irreparable injury.

**THIRD CAUSE OF ACTION**  
**INFRINGEMENT OF U.S. PATENT NO. 5,109,325**

53. Plaintiff SCHONBEK realleges each and every allegation set forth in paragraphs 1 through 52 above, and incorporates them herein by reference.

54. Defendant has, at least, imported, offered for sale and/or sold lighting fixtures throughout the United States, including this judicial district, that infringe one or more claims of the '325 Patent, and will continue such infringement unless enjoined by this Court. The infringing lighting fixtures, identified by product numbers and page number in the catalog distributed by the Defendant (Exhibit J), are listed in chart attached hereto as **Exhibit "K"** to this Complaint.

55. As a result of Defendant's acts, SCHONBEK has been damaged and will continue to be damaged.

56. Defendant's infringement of the '325 Patent has been knowing and willful.

57. Defendant's infringement of the '325 Patent has damaged SCHONBEK in an amount that is unknown and cannot at the present time be fully ascertained.

58. Unless enjoined by this court, Defendant will continue to infringe Plaintiff's patent rights causing irreparable injury.

**FOURTH CAUSE OF ACTION**  
**INFRINGEMENT OF U.S. PATENT NO. 5,222,805**

59. Plaintiff SCHONBEK realleges each and every allegation set forth in paragraphs 1 through 58 above, and incorporates them herein by reference.

60. Defendant has, at least, imported, offered for sale and/or sold lighting fixtures throughout the United States, including this judicial district, that infringe one or more claims of the '805 Patent, and will continue such infringement unless enjoined by this Court. The infringing lighting fixtures, identified by product numbers and page number in the catalog distributed by the Defendant (Exhibit J), are listed in chart attached hereto as **Exhibit "K"** to this Complaint.

61. As a result of Defendant's acts, SCHONBEK has been damaged and will continue to be damaged.

62. Defendant's infringement of the '805 Patent has been knowing and willful.

63. Defendant's infringement of the '805 Patent has damaged SCHONBEK in an amount that is unknown and cannot at the present time be fully ascertained.

64. Unless enjoined by this court, Defendant will continue to infringe Plaintiff's patent rights causing irreparable injury.

**FIFTH CAUSE OF ACTION**  
**INFRINGEMENT OF U.S. PATENT NO. 5,460,269**

65. Plaintiff SCHONBEK realleges each and every allegation set forth in paragraphs 1 through 64 above, and incorporates them herein by reference.

66. Defendant has, at least, imported, offered for sale and/or sold lighting fixtures throughout the United States, including this judicial district, that infringe one or more claims of the '269 Patent, and will continue such infringement unless enjoined by this Court. The

infringing lighting fixtures, identified by product numbers and page number in the catalog distributed by the Defendant (Exhibit J), are listed in chart attached hereto as **Exhibit "K"** to this Complaint.

67. As a result of Defendant's acts, SCHONBEK has been damaged and will continue to be damaged.

68. Defendant's infringement of the '269 Patent has been knowing and willful.

69. Defendant's infringement of the '269 Patent has damaged SCHONBEK in an amount that is unknown and cannot at the present time be fully ascertained.

70. Unless enjoined by this court, Defendant will continue to infringe Plaintiff's patent rights causing irreparable injury.

**SIXTH CAUSE OF ACTION**  
**INFRINGEMENT OF U.S. PATENT NO. 5,873,652**

71. Plaintiff SCHONBEK realleges each and every allegation set forth in paragraphs 1 through 70 above, and incorporates them herein by reference.

72. Defendant has, at least, imported, offered for sale and/or sold lighting fixtures throughout the United States that infringe one or more claims of the '652 Patent, and will continue such infringement unless enjoined by this Court. The infringing lighting fixtures, identified by product numbers and page number in the catalog distributed by the Defendant (Exhibit J), are listed in chart attached hereto as **Exhibit "K"** to this Complaint.

73. As a result of Defendant's acts, SCHONBEK has been damaged and will continue to be damaged.

74. Defendant's infringement of the '652 Patent has been knowing and willful.

75. Defendant's infringement of the '652 Patent has damaged SCHONBEK in an amount that is unknown and cannot at the present time be fully ascertained.

76. Unless enjoined by this court, Defendant will continue to infringe Plaintiff's patent rights causing irreparable injury.

**SEVENTH CAUSE OF ACTION**  
**COPYRIGHT INFRINGEMENT OF COPYRIGHT REGISTRATION 1-250-977**

77. Plaintiff SCHONBEK realleges each and every allegation set forth in paragraphs 1 through 76 above, and incorporates them herein by reference.

78. SCHONBEK holds and maintains exclusive title to the copyright and corresponding U.S. Copyright Registration for its works, including photographs and text, entitled: 1999 Catalog "The Well of Creativity Never Runs Dry" (271 Pages) ("the SCHONBEK 1999 Catalog"). U.S. Copyright Registration No. VA 1-250-977.

79. Defendant has copied, scanned, reproduced, prepared derivative works and/or distributed copies of certain photographs found in the SCHONBEK 1999 Catalog without SCHONBEK's authorization or consent.

80. Defendant had access to the SCHONBEK 1999 Catalog, protected by copyright registration VA 1-250-977, by virtue of the fact that such catalogs are in circulation among the public.

81. SCHONBEK did not authorize Defendant to reproduce, scan or otherwise copy and distributed any photograph of SCHONBEK lighting fixtures found in the SCHONBEK 1999 Catalog, nor to display reproductions of such photographs, nor did SCHONBEK authorize Defendant to create any derivative works or compilations based on such photographs.

82. Upon information and belief, Defendant has knowingly and willfully copied, displayed and distributed catalogs, in paper and electronic form, containing scanned in photographs from the 1999 SCHONBEK catalog of SCHONBEK lighting fixtures, which is in violation of the Copyright Act 17 U.S.C. §501. The specific SCHONBEK photographs from the copyrighted SCHONBEK 1999 Catalog and the corresponding catalog, page number and product number are listed in chart attached hereto as **Exhibit “K”** to the Complaint.

83. SCHONBEK has been and will continue to be injured as a direct and proximate result of Defendant's copyright infringement in that SCHONBEK has been deprived of sales and profits. In addition, Defendant has been unjustly enriched, and will continue to be unjustly enriched, by reason of copyright infringement, in that Defendant has achieved or will achieve sales and profits, and the opportunity to earn future sales and profits, as a direct and proximate result of their unlawful conduct. The total amount of damages that SCHONBEK has sustained or will sustain, and the total amount by which Defendant has been or will be unjustly enriched, will be proved at trial.

84. As a result of Defendant's acts of infringement alleged herein and in accordance with Section 504 of the Copyright Act, 17 U.S.C. §504, SCHONBEK is entitled to recover from Defendant the damages they have sustained and will sustain, and any profits obtained by Defendant. At present, the amount of such damages and profits cannot be fully ascertained by SCHONBEK, but will be proved at trial.

85. Pursuant to Section 502 of the Copyright Act, 17 U.S.C. §502, SCHONBEK is entitled to injunctive relief to prevent Defendant from further copyright infringements of SCHONBEK's copyrighted 1999 catalog.

86. SCHONBEK has no adequate remedy at law.

**EIGHTH CAUSE OF ACTION**  
**COPYRIGHT INFRINGEMENT OF COPYRIGHT REGISTRATION 1-250-977**

87. Plaintiff SCHONBEK realleges each and every allegation set forth in paragraphs 1 through 86 above, and incorporates them herein by reference.

90. SCHONBEK holds and maintains exclusive title to the copyright and corresponding U.S. Copyright Registration for its works, including photographs and text, entitled: 2002 Catalog (334 Pages) ("the SCHONBEK 2002 Catalog"). U.S. Copyright Registration No. VA 1-266-219

91. Defendant has scanned, reproduced, prepared derivative works and/or distributed copies of certain photographs found in the SCHONBEK 2002 catalog without SCHONBEK's authorization or consent.

92. Defendant had access to the SCHONBEK 2002 catalog, protected by copyright registration VA 1-266-219, by virtue of the fact that such catalogs are in circulation among the public.

93. SCHONBEK did not authorize Defendant to reproduce, scan or otherwise copy or distribute any photographs of SCHONBEK lighting fixture found in the SCHONBEK 2002 Catalog, nor to display reproductions of such photographs, nor did SCHONBEK authorize Defendant to create any derivative works or compilations based on such photographs.

94. Upon information and belief, Defendant has knowingly and willfully displayed and distributed catalogs, in paper and electronic form, containing scanned in photographs from the SCHONBEK 2002 Catalog of SCHONBEK lighting fixtures, which is in violation of the Copyright Act 17 U.S.C. §501. The specific SCHONBEK photographs from the 2002

copyrighted SCHONBEK catalog and the corresponding page number and product number in the catalog found in Exhibit J are listed in chart attached hereto as **Exhibit "K"** to this Complaint.

95. SCHONBEK has been and will continue to be injured as a direct and proximate result of Defendant's copyright infringement in that SCHONBEK has been deprived of sales and profits. In addition, Defendant has been unjustly enriched, and will continue to be unjustly enriched, by reason of their copyright infringement, in that Defendant has achieved or will achieve sales and profits, and the opportunity to earn future sales and profits, as a direct and proximate result of their unlawful conduct. The total amount of damages that SCHONBEK has sustained or will sustain, and the total amount by which Defendant has been or will be unjustly enriched, will be proved at trial.

96. As a result of Defendant's acts of infringement alleged herein and in accordance with Section 504 of the Copyright Act, 17 U.S.C. §504, SCHONBEK is entitled to recover from Defendant the damages they have sustained and will sustain, and any profits obtained by Defendant. At present, the amount of such damages and profits cannot be fully ascertained by SCHONBEK, but will be proved at trial.

97. Pursuant to Section 502 of the Copyright Act, 17 U.S.C. §502, SCHONBEK is entitled to injunctive relief to prevent Defendant from further copyright infringements of SCHONBEK's copyrighted 2002 catalog.

98. SCHONBEK has no adequate remedy at law.

**NINETH CAUSE OF ACTION**  
**DECEPTIVE ACTS AND PRACTICES UNDER NEW YORK STATUTE**

99. Plaintiff SCHONBEK realleges each and every allegation set forth in paragraphs 1 through 98 above, and incorporates them herein by reference.

100. Defendant's activities constitute deceptive acts and practices, causing harm and injury to SCHONBEK in violation of §349 of the General Business Law of the State of New York.

101. Upon investigation and information, Defendant has engaged and continues to engage in willful and knowledgeable practices of deceptive acts and practices in the advertising and sale of its products and services.

102. Based upon the wrongful acts of Defendant, SCHONBEK has incurred monetary damages presently unknown to SCHONBEK.

103. SCHONBEK has no adequate remedy at law.

**TENTH CAUSE OF ACTION**  
**UNFAIR COMPETITION - COMMON LAW**

104. SCHONBEK repeats and realleges each and every allegation contained in paragraphs 1 through 103 above.

105. Defendant's actions constitute unfair competition in violation of SCHONBEK's rights under the common law of the State of New York.

106. Defendant's acts of unfair competition entitle SCHONBEK to recover its damages and costs of this action together with an accounting of profits made by Defendant through their actions.

107. The willful, wanton and malicious nature of Defendant's conduct entitles SCHONBEK to an award of treble damages, reasonable attorneys fees and punitive damages against Defendant.

108. Defendant's acts have caused and are causing great irreparable injury to SCHONBEK and unless those acts are restrained by this Court, they will be continued and will continue to cause great irreparable injury to SCHONBEK.

109. SCHONBEK may not have an adequate legal remedy in the event monetary damages cannot be properly calculated.

110. Under the common law of the State of New York, SCHONBEK is entitled to preliminary and permanent injunctive relief to prevent Defendant's continuing acts of unfair competition.

111. Defendant is using SCHONBEK's photographs with the wrongful intent to capitalize on the goodwill and business of SCHONBEK.

#### **DEMAND FOR JURY TRIAL**

112. Plaintiff SCHONBEK hereby demands a trial by jury.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff SCHONBEK prays for the entry of judgment from this Court ordering:

- a. A preliminary and permanent injunction against Defendant, and all persons acting in concert or participation with him, or persons acting or purporting to act on his behalf, including, but not limited to partners, agents, representatives, employees, attorneys, successors, and assigns, and any and all persons acting in concert or privity with them, from infringing the SCHONBEK Patents as provided in 35 U.S.C. §283;
- b. A finding that Defendant has infringed the SCHONBEK Patents;
- c. An award of damages and interest, as a result of Defendant's acts of patent infringement of the SCHONBEK Patents;

- d. An award to Plaintiff SCHONBEK of an accounting of its damages resulting from the infringement of the SCHONBEK Patents by Defendant as provided in 35 U.S.C. §284;
- e. An award to Plaintiff SCHONBEK of any additional remedies from infringement of the design patents asserted herein by Defendant as provided in 35 U.S.C. §289.
- f. An award to Plaintiff SCHONBEK of treble damages based on Defendant knowing and willful infringement of the SCHONBEK Patents as provided in 35 U.S.C. §284;
- g. An award to Plaintiff SCHONBEK for its costs in this action together with reasonable attorney's fees as provided in 35 U.S.C. §285;
- h. The recall and destruction of all materials within the control of Defendant, its agents or distributors which in any way infringe upon one or more of the SCHONBEK Patents;
- i. Plaintiff SCHONBEK's attorney's fees, costs and expenses, pursuant to 17 U.S.C. §505 or New York State law;
- j. An injunction enjoining the Defendant and all persons acting in concert or participation with them or persons acting or purporting to act on their behalf, including but not limited to its partners, owners, agents, representatives, employees, attorneys, successors, affiliated companies, assigns and any and all persons acting in concert or privity with them, from unfairly competing with SCHONBEK in any manner, whatsoever;

k. Pursuant to 17 U.S.C. §503, an Order for the impounding of all copies claimed to have been made or used in violation of SCHONBEK's exclusive rights and of all means by which copies may be reproduced, and an Order for the destruction or other reasonable disposition of all copies that have been made or used in violation of SCHONBEK's exclusive rights and of all means by which copies may be reproduced; and in the event that certain such copies are no longer under the control of Defendant, the name, address, and relevant contact information of those believed to be in possession and control of such materials;

l. An Order for the recall and destruction of all materials within the control of Defendant, its agents or distributors which in any way utilize or refer to SCHONBEK or SCHONBEK's lighting fixtures or include any copyrighted work owned by SCHONBEK, including but not limited to catalogs and other promotional materials;

m. An award of treble, increased or punitive damages, as provided by 17 U.S.C. §101 et seq., and as may be available under any other statute or common law;

n. An accounting and award of Defendant's profits derived by them from any of the wrongful acts complained of herein.

o. Such other and further relief against Defendant in favor of Plaintiff SCHONBEK that this court deems just, equitable and proper.

Respectfully submitted,

HESLIN ROTHENBERG FARLEY & MESITI P.C.

*Susan E. Farley*

Dated: October 30, 2006

Susan E. Farley, Esq.  
HESLIN ROTHENBERG FARLEY & MESITI P.C.  
5 Columbia Circle  
Albany, New York 12203-5160  
Telephone: (518) 452-5600  
Facsimile: (518) 452-5579

**Attorneys for Plaintiff,  
Schonbeck Worldwide Lighting Inc.**

**EXHIBIT A**



US00D335362S

**United States Patent [19]**

Schonbek

[11] Patent Number: Des. 335,362

[45] Date of Patent: \*\* May 4, 1993

## [54] LIGHTING FIXTURE NECK

D. 71,733 12/1926 Crowell ..... D26/153  
D. 150,946 9/1948 Godiffe ..... D26/153

[75] Inventor: Arnold Schonbek, Plattsburgh, N.Y.

[73] Assignee: A. Schonbek &amp; Co., Inc., Plattsburgh, N.Y.

[\*\*] Term: 14 Years

[21] Appl. No.: 725,269

[22] Filed: Jul. 3, 1991

[52] U.S. Cl. ..... D26/149; D7/562;  
D26/153[58] Field of Search ..... D26/72, 80-92,  
D26/128-137, 142, 148, 149, 153, 154;  
362/404-408, 806, 457, 458

## [56] References Cited

## U.S. PATENT DOCUMENTS

D. 40,523 2/1910 Van Doren ..... D26/153  
D. 61,646 11/1922 Israel ..... D26/153  
D. 62,982 9/1923 Dahl ..... D26/153  
D. 69,207 1/1926 Silvestro ..... D26/153

## OTHER PUBLICATIONS

Lighting, Jun. 1956, p. 67, Igmor Novelty Corp. Crystal  
Lamp Bases.  
Lightolier Lighting Catalog, 1950, p. 10, Lead Crystal  
Chandelier.Primary Examiner—Susan J. Lucas  
Attorney, Agent, or Firm—Wolf, Greenfield & Sacks

## [57] CLAIM

The ornamental design for a lighting fixture neck, as  
shown and described.

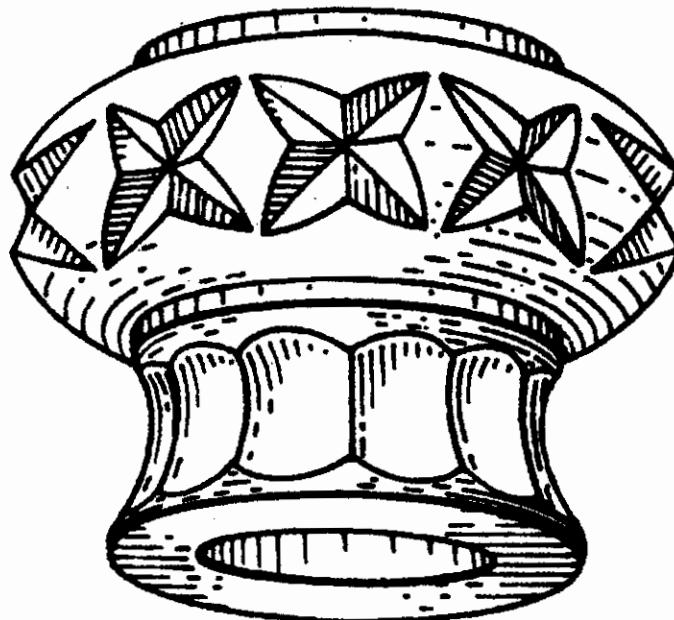
## DESCRIPTION

FIG. 1 is a top plan view of a lighting fixture neck  
showing my new design;FIG. 2 is a side elevational view thereof, all sides being  
identical;

FIG. 3 is a bottom plan view thereof;

FIG. 4 is a bottom, side perspective view thereof; and,

FIG. 5 is a cross-sectional view thereof.



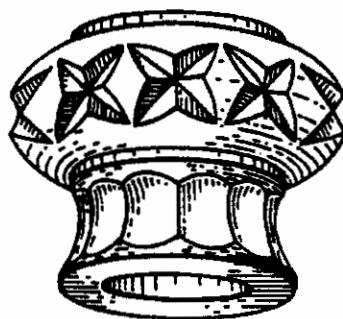
**U.S. Patent**

May 4, 1993

**Des. 335,362**



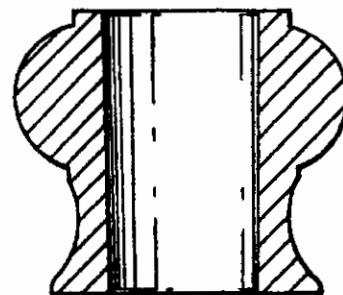
***FIG. 1***



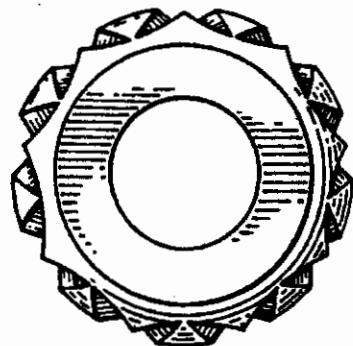
***FIG. 4***



***FIG. 2***



***FIG. 5***



***FIG. 3***

**EXHIBIT B**



US00D336537S

**United States Patent** [19]  
**Schonbek**

[11] **Patent Number:** Des. 336,537  
[45] **Date of Patent:** \*\* Jun. 15, 1993

[54] **LIGHTING FIXTURE NECK**[75] **Inventor:** Arnold Schonbek, Plattsburgh, N.Y.[73] **Assignee:** A. Schonbek & Co., Inc., Plattsburg, N.Y.[\*\*] **Term:** 14 Years[21] **Appl. No.:** 725,267[22] **Filed:** Jul. 3, 1991[52] **U.S. Cl.** ..... D26/149; D7/526;  
D7/562; D26/9; D26/153[58] **Field of Search** ..... D11/152, 153; D7/526,  
D7/527, 528, 530, 531, 560, 561, 562, 566;  
D26/72, 80-92, 128-137, 142, 148, 149, 153,  
154, 9, 11; 362/404-408, 806, 457, 458[56] **References Cited****U.S. PATENT DOCUMENTS**

D. 40,523 2/1910 Van Doren ..... D26/153  
D. 61,646 11/1922 Israel ..... D26/153  
D. 62,982 9/1923 Dahl ..... D26/153  
D. 69,207 1/1926 Silvestro ..... D26/153

D. 71,733 12/1926 Crowell ..... D26/153  
D. 150,946 9/1948 Gotlieb ..... D26/153

**OTHER PUBLICATIONS**

Lighting, Jun. 1956, p. 67, Igmor Novelty Corp. Crystal Lamp Bases.

Lightolier Lighting Catalog, 1950, p. 10, Lead Crystal Chandelier.

*Primary Examiner*—Susan J. Lucas  
*Attorney, Agent, or Firm*—Wolf, Greenfield & Sacks[57] **CLAIM**

The ornamental design for a lighting fixture neck, as shown and described.

**DESCRIPTION**

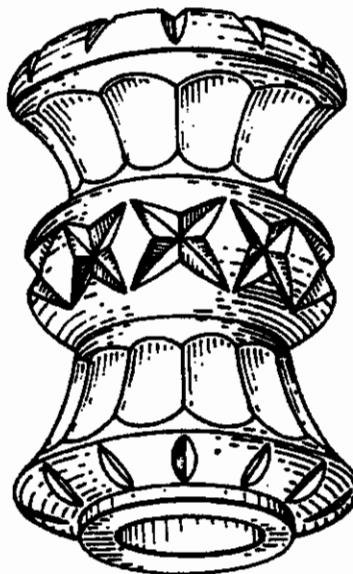
FIG. 1 is a top plan view of a lighting fixture neck showing my new design;

FIG. 2 is a side elevational view thereof, all sides being identical;

FIG. 3 is a bottom plan view thereof;

FIG. 4 is a bottom, side perspective view thereof; and,

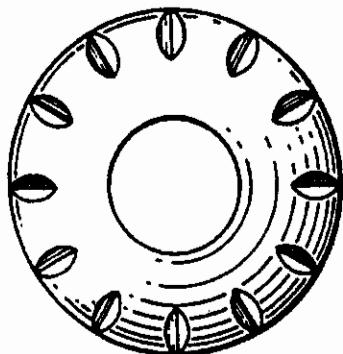
FIG. 5 is a cross-sectional view thereof.



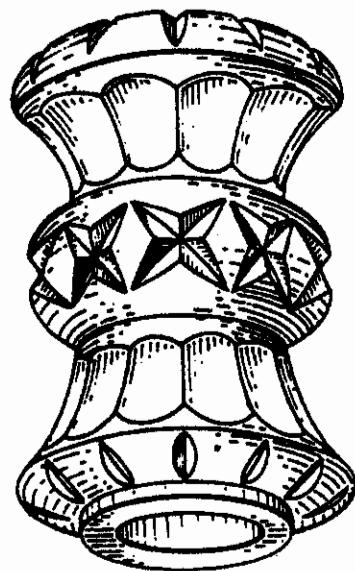
U.S. Patent

June 15, 1993

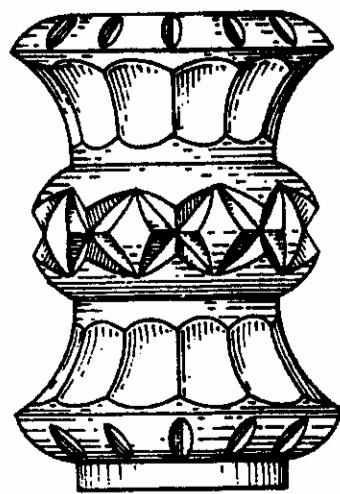
Des. 336,537



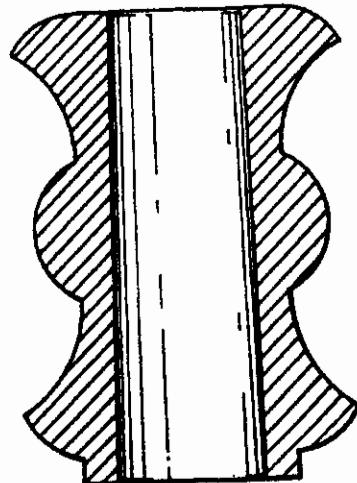
***FIG. 1***



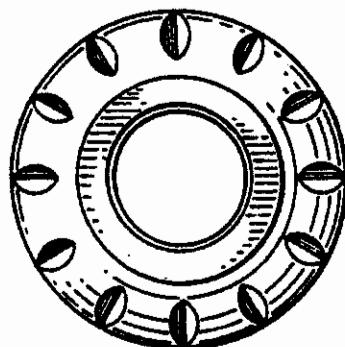
***FIG. 4***



***FIG. 2***



***FIG. 5***



***FIG. 3***

EXHIBIT C



US005109325A

**United States Patent [19]**

Bayer et al.

[11] Patent Number: **5,109,325**[45] Date of Patent: **Apr. 28, 1992**

[54] FASTENING DEVICE FOR CHANDELIER TRIMMINGS

2,980,920 4/1961 Lieberman ..... 248/324

[75] Inventors: Georg Bayer; Arnold Schonbek, both of Plattsburgh, N.Y.

## FOREIGN PATENT DOCUMENTS

1293964 4/1962 France ..... 362/806  
155955 1/1921 United Kingdom ..... 362/806

[73] Assignee: A. Schonbek &amp; Co., Inc., Plattsburgh, N.Y.

Primary Examiner—Ira S. Lazarus

Assistant Examiner—Richard R. Cole

[21] Appl. No.: 632,414

## [57] ABSTRACT

[22] Filed: Dec. 21, 1990

The invention relates to a chandelier including chandelier trimmings connected to a framework by way of a hook and an attachment whereby the attachment is integral with at least part of the framework. The attachment consists of two openings which may be two slots or a slot and a hole which are located in the framework in such a way that the hook can be introduced into the attachment with the minimum of rotational movement and in such a way that the chandelier can be constructed even in close to the ceiling arrangement. It is advantageous if the framework is made from a flat strip or a plate. The hook is formed from wire and consists of a series of bends provided in such a way that when the hook is located in the attachment the trimmings achieve their correct position such that the framework is hidden by the trimmings. In this way, the framework need not be made of an ornamental material. The hook is provided with a stop at its end in the form of a head or a bend such that when the hook is in its final position it cannot be separated from the framework in a horizontal outward or vertical downward motion.

## Related U.S. Application Data

[63] Continuation of Ser. No. 138,851, Dec. 29, 1987, abandoned.

[51] Int. Cl. 5 ..... F21S 1/04

[52] U.S. Cl. ..... 362/433; 362/339; 362/457

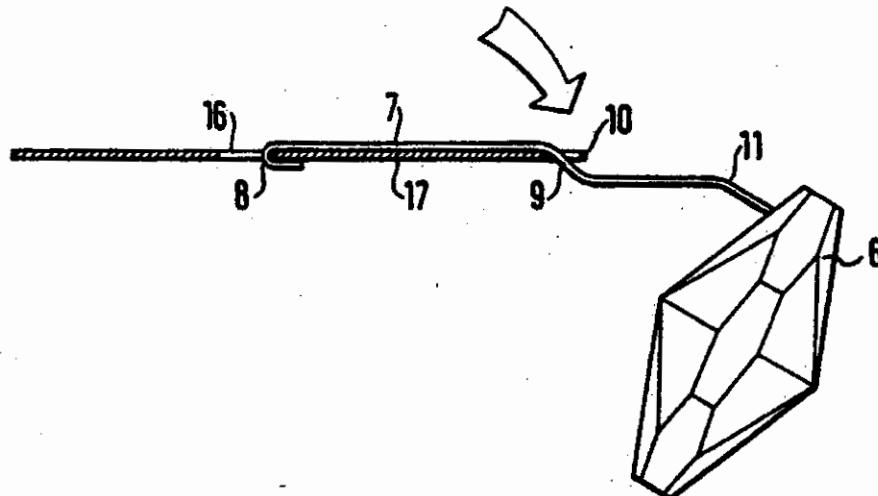
[58] Field of Search ..... 362/457, 433, 806, 404, 362/405, 406, 396, 339; D8/367, 370; 248/340, 303, 304, 322, 339, 341; D26/84, 87, 91, 92, 154, 138, 142, 145, 113; 428/7; 24/546, 369

## [56] References Cited

## U.S. PATENT DOCUMENTS

Re. 10,008 1/1882 Jacobsen	362/405
D. 16,550 2/1886 Schneider	D26/154
178,941 6/1876 McLeewe	362/339
180,800 8/1876 Shirley	362/339
D. 209,703 12/1967 Loch	D26/138
D. 248,790 8/1978 Castor	D26/138
1,172,937 2/1916 Butcher	D8/370
2,513,565 7/1950 Johnson	362/339

35 Claims, 12 Drawing Sheets

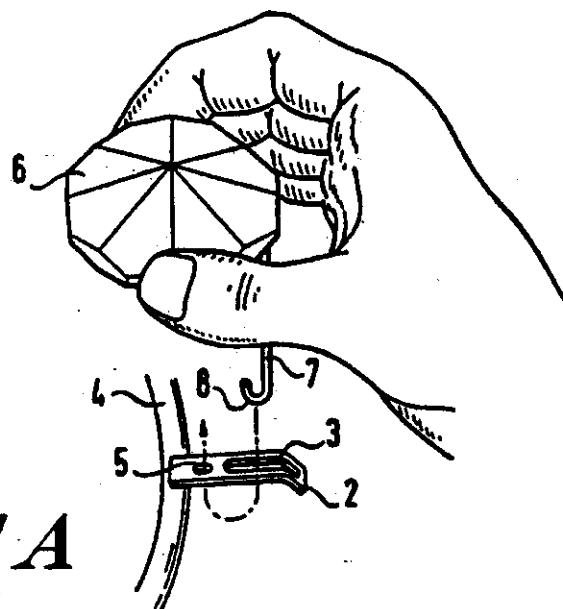


U.S. Patent

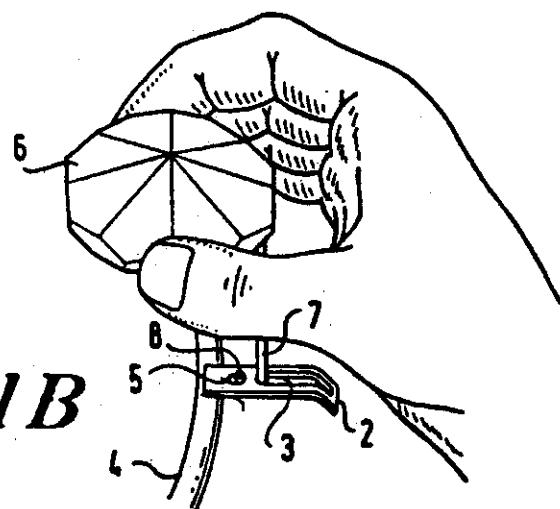
Apr. 28, 1992

Sheet 1 of 12

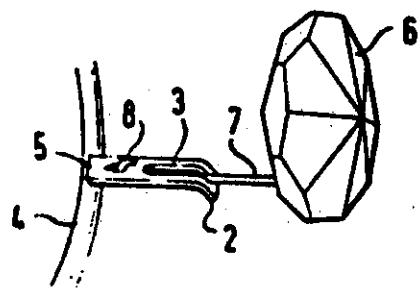
5,109,325



*FIG. 1A*



*FIG. 1B*



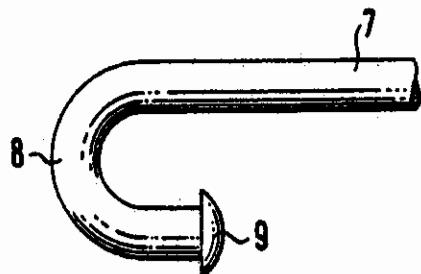
*FIG. 1C*

**U.S. Patent**

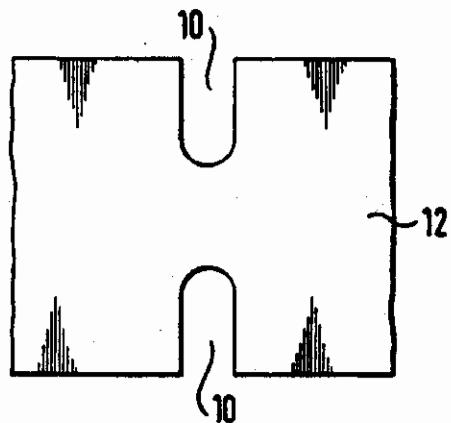
Apr. 28, 1992

Sheet 2 of 12

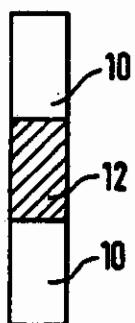
**5,109,325**



***FIG. 2A***



***FIG. 2B***



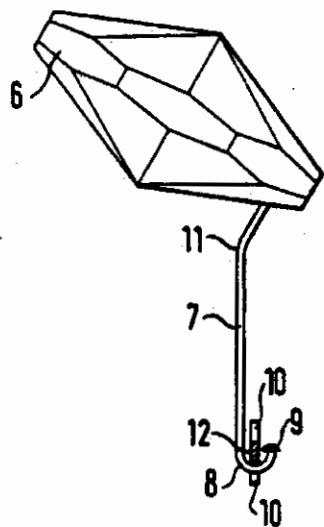
***FIG. 2C***

**U.S. Patent**

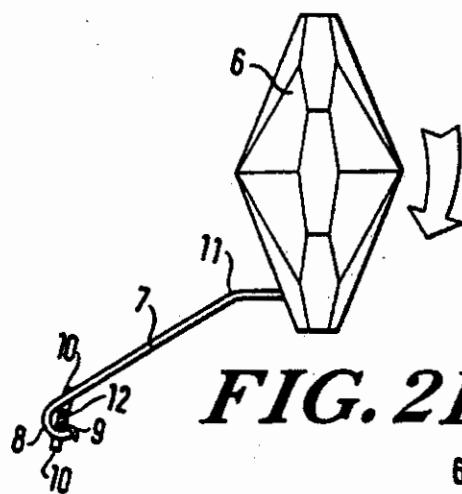
Apr. 28, 1992

Sheet 3 of 12

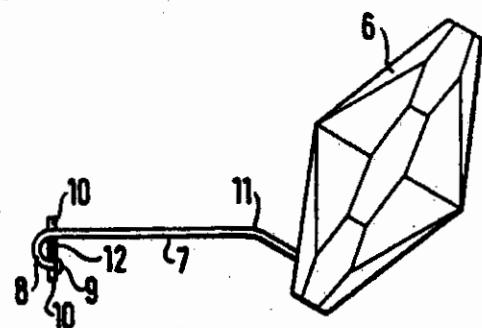
**5,109,325**



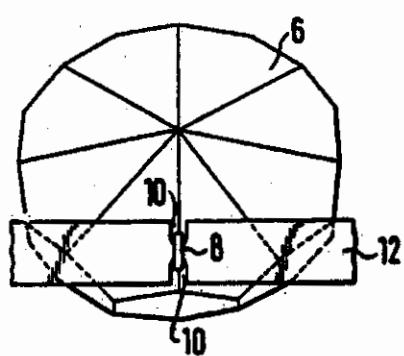
***FIG. 2D***



***FIG. 2E***



***FIG. 2F***



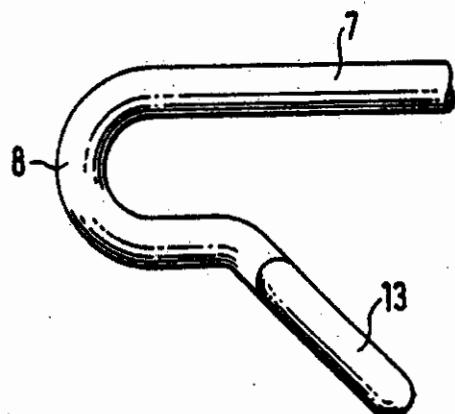
***FIG. 2G***

**U.S. Patent**

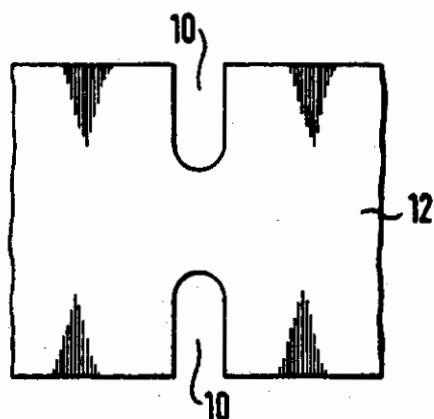
Apr. 28, 1992

Sheet 4 of 12

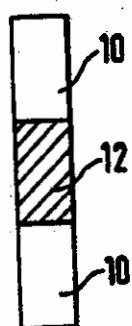
**5,109,325**



***FIG. 3A***



***FIG. 3B***



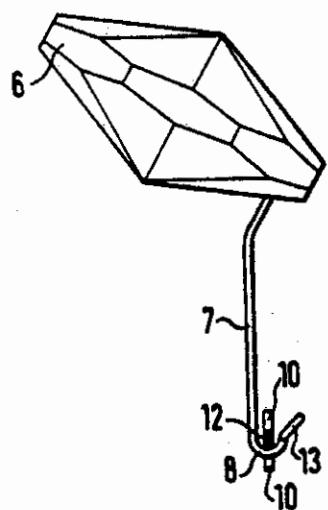
***FIG. 3C***

U.S. Patent

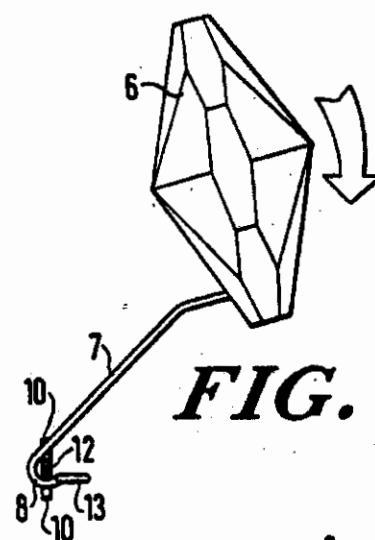
Apr. 28, 1992

Sheet 5 of 12

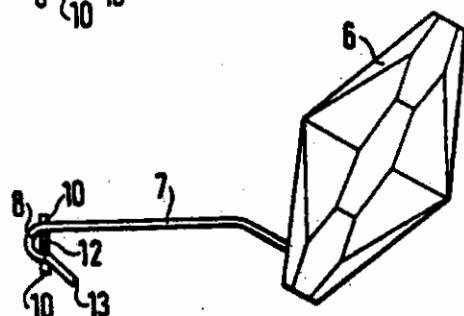
5,109,325



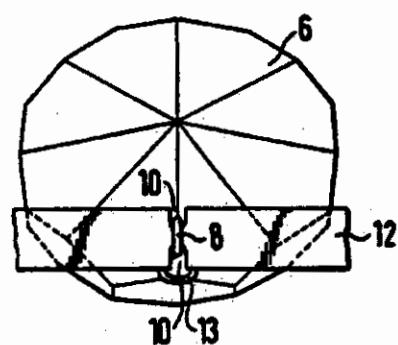
***FIG. 3D***



***FIG. 3E***



***FIG. 3F***



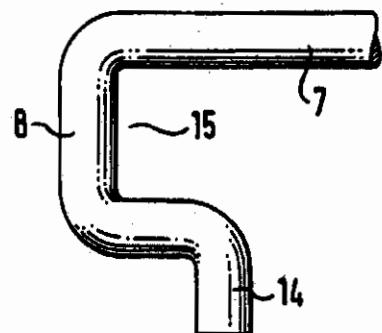
***FIG. 3G***

U.S. Patent

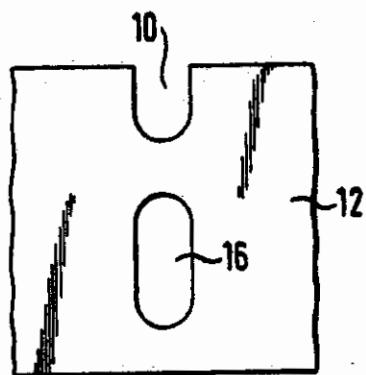
Apr. 28, 1992

Sheet 6 of 12

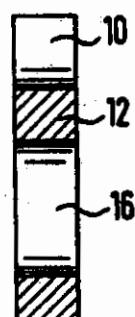
5,109,325



***FIG. 4A***



***FIG. 4B***



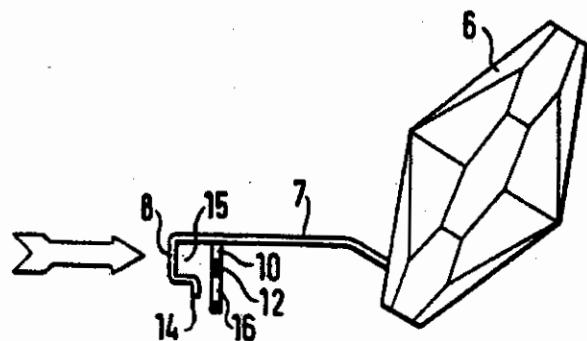
***FIG. 4C***

U.S. Patent

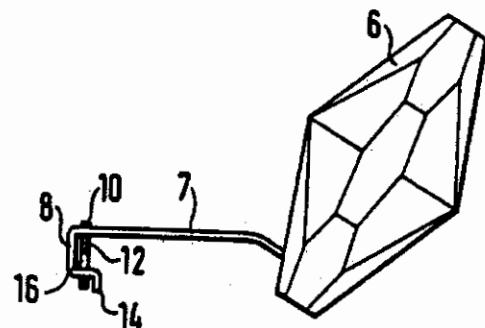
Apr. 28, 1992

Sheet 7 of 12

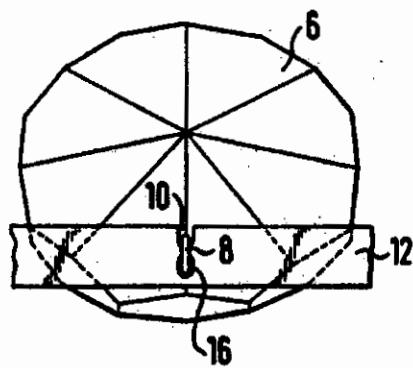
5,109,325



***FIG. 4D***



***FIG. 4E***



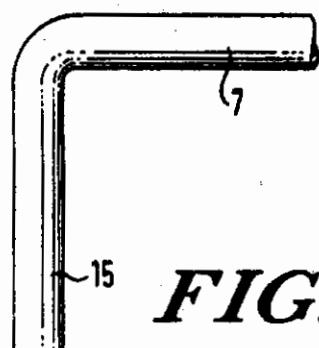
***FIG. 4F***

U.S. Patent

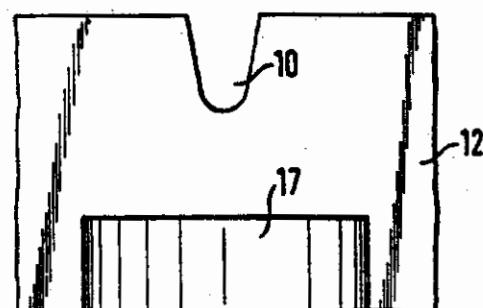
Apr. 28, 1992

Sheet 8 of 12

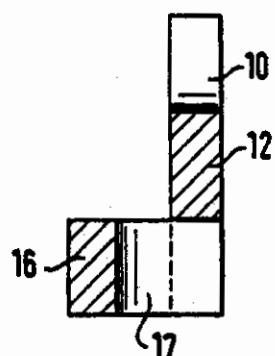
5,109,325



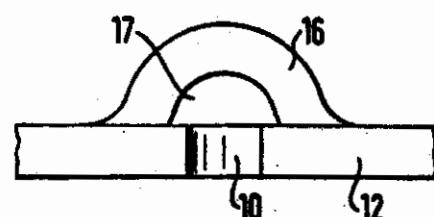
***FIG. 5A***



***FIG. 5B***



***FIG. 5C***



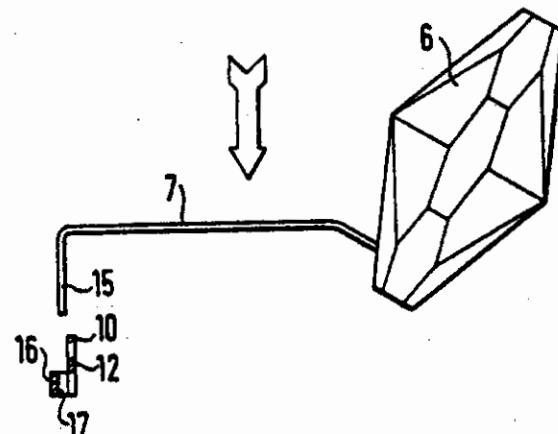
***FIG. 5D***

U.S. Patent

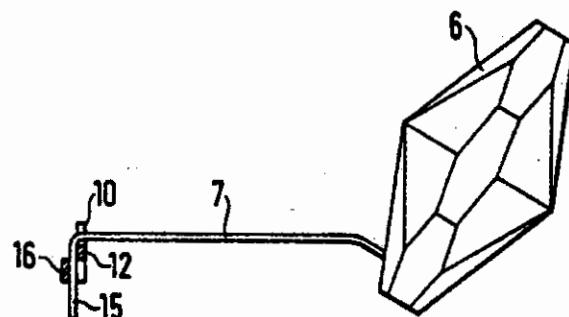
Apr. 28, 1992

Sheet 9 of 12

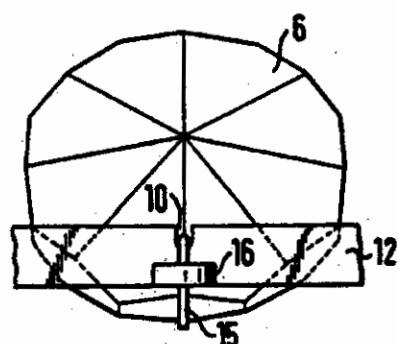
5,109,325



***FIG. 5E***



***FIG. 5F***



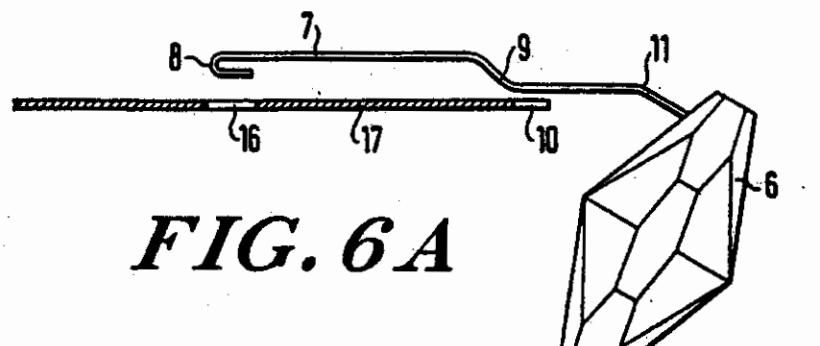
***FIG. 5G***

U.S. Patent

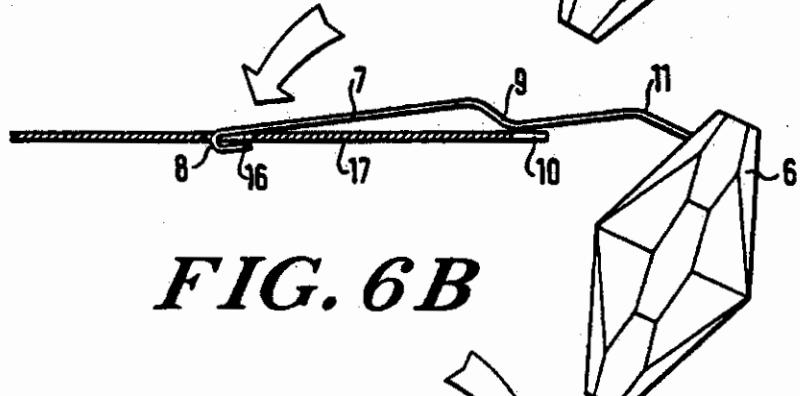
Apr. 28, 1992

Sheet 10 of 12

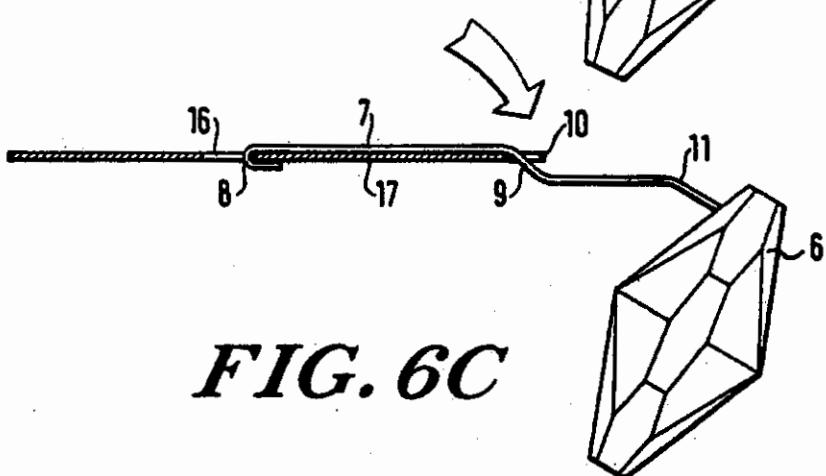
5,109,325



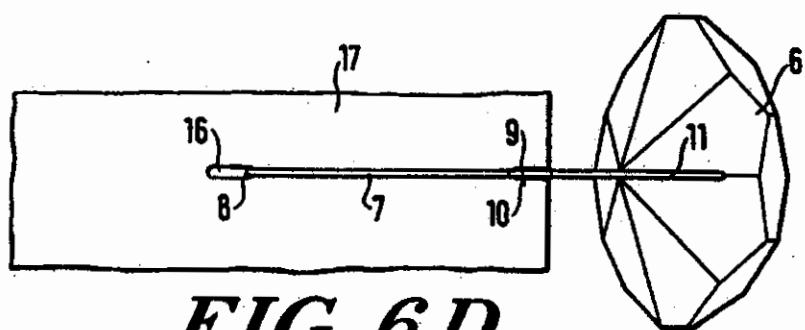
*FIG. 6A*



*FIG. 6B*



*FIG. 6C*



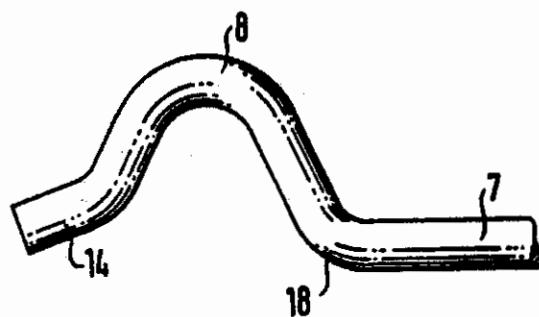
*FIG. 6D*

**U.S. Patent**

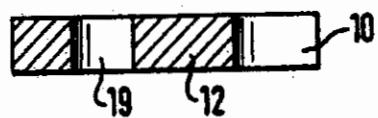
Apr. 28, 1992

Sheet 11 of 12

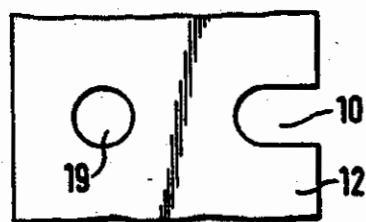
**5,109,325**



***FIG. 7A***



***FIG. 7B***



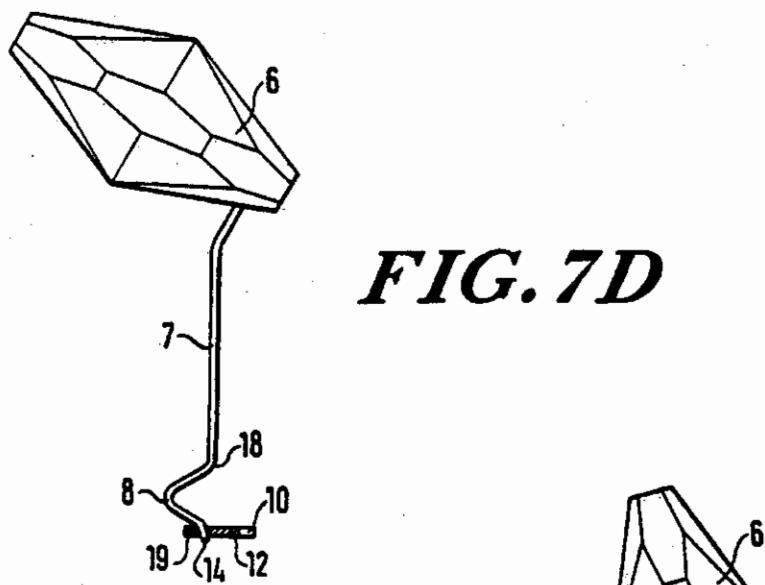
***FIG. 7C***

U.S. Patent

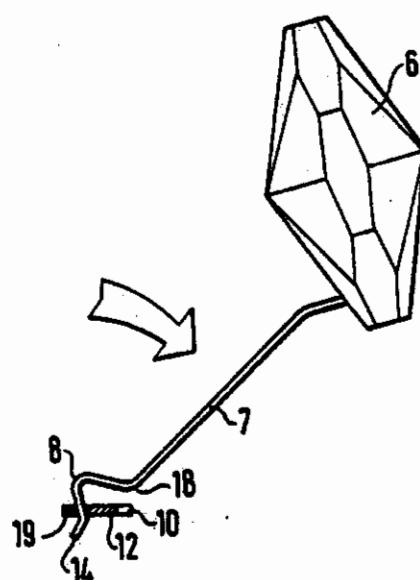
Apr. 28, 1992

Sheet 12 of 12

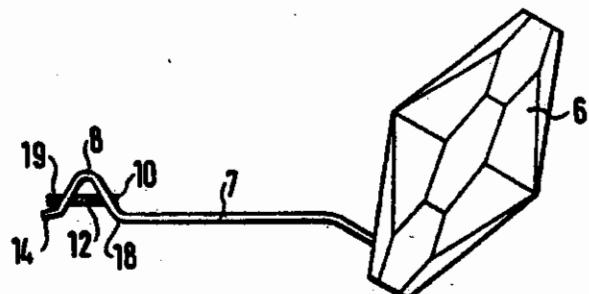
5,109,325



***FIG. 7D***



***FIG. 7E***



***FIG. 7F***

5,109,325

1

2

## FASTENING DEVICE FOR CHANDELIER TRIMMINGS

This application is a continuation of application Ser. No. 07/138,851, filed Dec. 29, 1987 now abandoned.

The invention relates to fastening devices for chandelier trimmings. The chandelier comprises chandelier trimmings with a hook means and a framework for carrying said hook means by an attachment means so that the trimmings are positioned and fastened correctly.

The traditional form of chandelier consists of a plurality of chandelier trimmings hanging from an ornamental framework. In such an arrangement the framework of the chandelier is visible and therefore of ornamental value. Further, the chandelier trimmings hang, essentially perpendicular as determined by gravity alone and therefore there is a limit to the designs which can be constructed.

In order to eliminate the disadvantages of the conventional system a chandelier trimming has been designed as shown in FIGS. 1a-1c. The chandelier trimming in form of a jewel or any other shape (6) is permanently connected to a hook (7). The framework (4) of the chandelier has a bracket (2) attached to it. The chandelier trimming is installed in the following way. The trimming (6) is held so that the base (8) of the hook (7) is above the slot (3) in the bracket (2). The fitting is then lowered so that the hook enters the slot, is pushed towards the centre of the fixture and then raised so that the end of the hook (8) enters the hole (5). With the hook in the bracket as shown the trimming is pivoted downwards so that the hook rests in the end of the slot. By bending the shank of the hook alternatively by setting the bracket at various angles, it is possible to adjust the position of the trimming in any desired way. Further, it is possible to glue the wire hooks into the brackets which allows designs of a very complex nature including those in which the hook and trimming lie vertically upwards from the framework. Further, the trimming conceals the framework so that the hooks and the framework are not of ornamental value. This advanced design has several disadvantages. The operations of attaching and removing the trimmings are both complicated and costly, further, chandeliers which have to be hung close to the ceiling can not be installed since there is no space for the circular motion required in the process of attaching and removing trimmings. Further, the manufacture of such chandelier frames is expensive.

The object of the present invention is to construct a chandelier which does not have the disadvantages of the conventional designs.

A further object of the invention is to produce a chandelier in which the trimmings can be easily attached and removed from the framework, either during installation or during cleaning.

A further object of the present invention is to produce a chandelier which can be installed close to the ceiling by using a hook means which can be installed without a circular motion.

A further object of the present invention is to produce a chandelier frame of low cost.

The objects of the invention are solved for a chandelier of the aforementioned type by arranging the attachment means to be integrally constructed from a part of the framework.

The particular advantage of this arrangement is that there is no requirement for attaching the special brackets used to hold the trimmings. Instead the attachment means is directly machined into the framework. Particularly when the framework is made from a flat strip or plate this manufacturing step may be carried out automatically using numerically controlled equipment. The manufacturing costs can be considerably reduced as there are no welding or soldering operations of the brackets to be carried out. It is, however, still possible to design the attachment means so that when the chandelier trimmings are installed the hook means is concealed and does not have ornamental value, thus maintaining the advantages of the conventional advanced design.

It is particularly advantageous when the attachment means is formed in the framework from two openings and the hook means is formed with at least one bend. In this way the advantages of the advanced constructions shown in FIG. 1 can be maintained.

One form of the present invention provides attachment means with which both said openings are slots aligned on one axis in the framework, each slot being open at the end which is opposite from the other slot and the hook means is formed at its free end with a substantially "U"-shaped bend and is terminated by a stop means larger in diameter than the width of the slot. The said stop means can be provided by a solid head or a loop, or a ring.

With an arrangement of this kind the stop means at the end of the hook rests underneath the framework and is in contact with the slot and prevents the trimming from swinging round to a vertical position. The position of the trimming may be adjusted to any desired location by introducing appropriate bends in the shank of the hook.

A further solution to the present invention is provided when the first opening in the framework is a hole and the second opening is a open slot, the open slot being open at the end opposite to the hole. The use of a hole and slot rather than two slots allows a particularly simple hook form in which the stop means is provided by an end portion of the hook itself.

The hole may be in the form of a round hole or an elongated slot. In this case the hook means can be formed at a free end with a substantially "U"-shaped portion, whereby the free end of the said "U"-shaped portion is further bent in an opposite direction thereto to form an end portion. This end portion can be straight. Further, the "U"-shaped bend can be formed from a double bend with a straight portion therebetween on the side facing the framework part. When located on the framework the inside of the "U"-shaped bend is then flush with the flat surface of the framework part and a particularly stable arrangement is obtained with which the trimming may be positioned very accurately. In this way chandeliers can be constructed in a close-to-the-ceiling situation since the insertion of the hook means requires only a horizontal and short downward motion.

Alternatively, in the case that a flat plate is used as a framework rather than a flat strip the elongated slot may be located well away from the open slot so that in the installed condition the hook of the hook means is located in the slot and the shank of the hook means lies along the framework. In this case a considerable portion of the shank of the hook is supported by the framework and again a particularly stable support of the trimming

5,109,325

3

is obtained. It is advantageous in this form of the present invention to provide a further bend in the shank which locates into the open slot to prevent the trimming from moving sideways. This arrangement also allows close-to-the-ceiling installations.

In the above mentioned arrangements the two openings in the framework lie substantially in one plane, however, the first opening may lie in a plane substantially perpendicular to the plane of the slot. In this case the opening perpendicular to the plane of the slot may be integrally formed from a raised portion of the framework part. The advantage of this arrangement is that the hook means can be very simply manufactured with a single bend and straight portion at its free end. This arrangement also allows close-to-the-ceiling installations.

With all the above mentioned arrangements further bends may be formed in the shank of the hook in order to set the position of the trimming as required. The hook means is normally made of wire, particularly a metal wire. The frame is preferably made from a flat sheet material in the form of a strip or plate.

The invention as well as its embodiments are described in detail in the following in conjunction with the attached drawings in which:

FIGS. 1a-1c show the installation method of a conventional chandelier fitting.

FIGS. 2a-2g show the first embodiment of the present invention.

FIGS. 3a-3g show the second embodiment of the present invention.

FIGS. 4a-4f show the third embodiment of the present invention.

FIGS. 5a-5g show the fourth embodiment of the present invention.

FIGS. 6a-6d show the fifth embodiment of the present invention.

FIGS. 7a-7f show the sixth embodiment of the present invention.

Throughout the figures the same reference numerals are used for the same parts. FIGS. 2a-2g show a first embodiment of the present invention. In FIG. 2a the end of the hook means is shown, consisting of a substantially "U"-shaped bend (8) terminated by an enlarged head portion (9). This head may be formed directly from the wire of the hook or may be a separate part.

The framework of the chandelier is constructed from a flat strip shown in FIG. 2b and 2c. Two open slots (10) are provided in the strip, the slots being open at the end away from the opposite slot. The two slots are so arranged that they lie substantially on the same axis. The exact form of the slot may be freely chosen provided the slot width is greater than the diameter of the hook wire and smaller than the head (9) of the hook.

The method of installation of the trimming according to this embodiment of the invention is shown in FIGS. 2d to 2g. The strip which forms the framework is arranged, for example, in a vertical plane. The trimming (6) is then held in the hand so that the hook (7) is roughly vertical. The "U"-shaped bend (8) and head (9) are then installed in a basically vertical direction as shown in FIG. 2d so that the "U"-shaped bend (8) passes through the furthest away slot (10) with the head (9) underneath the strip. The trimming is then rotated until the head contacts the two sides of the slot as shown in FIG. 2f. The exact position of the trimming is determined by the length of the "U"-shaped bend (8) and the position of the head (9) as well as the degree of

4

bend of the "U"-shaped bend (8), the length of the hook (7) and the position and degree of bend of supplementary bends such as (11) in the hook (7). As shown in FIG. 2g and therefore the strip (12) and the hook (7) are concealed by the trimming (6). The strip therefore does not need to contribute to the ornamental value of the chandelier thus reducing manufacturing costs. Further, the strip (12) may be located in any desired orientation, for example, with the strip (12) fixed horizontally in the framework, the trimming (6) resting finally in a vertical position.

In the final position the hook can not be separated from the strip in a horizontal outward or vertical downward motion.

15 The second embodiment of the present invention is shown in FIGS. 3a-3g, this embodiment being basically similar to the first embodiment except that the end of the "U"-shaped bend (8) is terminated by a ring or loop (13), which can preferably be manufactured from a portion of the hook wire (7). The arrangement of the slots (10) in the strip (12) as shown in FIGS. 3b and 3c is identical to the framework of the first embodiment. In this case the loop or ring (13) is manufactured so that it is larger in diameter than the width of the slots (10).

20 25 The installation sequence of the chandelier fitting according to the second embodiment of the present invention is shown in FIGS. 3d to 3g and is basically equivalent to the method shown in FIGS. 2d to 2g.

In the final position the hook can not be separated from the strip in a horizontal outward or vertical downward motion.

The chandelier according to the first or second embodiment of the present invention has the advantage in comparison with conventional methods that the strip (12) can be made from a non-ornamental material and the attachment means for the hook of the fitting is produced as an integral part of the strip (12) and not a separate bracket welded or soldered to the frame. The manufacturing costs of the chandelier are therefore considerably reduced. The additional head (9) or the ring (13) at the end of the hook (7) can also be relatively easily manufactured during the production of the hook. Any suitable enlarged portion may be used as the stop at the end of the "U"-shaped bend (8).

40 45 50 55 In some circumstances there is inadequate space to install the jewel when using fittings in accordance with the first or second embodiment of the present invention. In crowded or difficult locations the fitting according to the third embodiment of the present invention may be used as shown in FIGS. 4a-4f. The hook is basically formed from a "U"-shaped bend (8) as shown in FIG. 4a and can preferably be made so that the "U"-shaped bend is formed from two right angle bends and a straight portion therebetween, the inner surface (15) of the hook being flat. The end of the "U"-shaped bend (8) is further bent to form an end portion (14) which is preferably straight. The framework according to this embodiment is shown in FIGS. 4b and 4c and consists of a flat strip with an elongated closed slot (16) and an open slot (10), both slots being aligned substantially on the same axis. The elongated slot (16) is dimensioned so that the end portion (14) of the hook (7) will pass through.

55 60 65 The installation of the fitting according to this embodiment is shown in FIGS. 4d to 4f. With reference to FIG. 4d the framework of the chandelier is manufactured, for example, with the strip (12) vertical, the open slot being above the closed slot. The trimming (6) and

5,109,325

5

hook (7) are then offered up to the strip (12) such that the end portion (14) passes through the elongated slot (16). The fitting is then lowered as shown in FIG. 4e so that the end portion (14) rests behind the end of the strip (12) and the hook (7) lies in the slot (10). In this final position the hook can not be separated from the strip in a horizontal outward or vertical downward motion. The framework of the chandelier may of course be manufactured with the strip at any desired angle provided space allows the installation in the direction perpendicular to the strip (as shown by the arrow in FIG. 4d).

The dimensions of the "U"-shaped bend (8) shown in FIG. 4a should be so chosen that when the hook is in the final installed position as shown in FIG. 4e and the outer edge of the free arm of the "U"-shaped bend (8) lies against the end of the elongated slot the other arm of the "U"-shaped bend is located within the slot (10) and not above it.

This embodiment of the invention is particularly suitable for chandeliers which have to be hung close to the ceiling as the installation can be carried out with a simple horizontal movement with no rotational movement being required.

The fourth embodiment of the present invention is shown in FIGS. 5a-5g. In this embodiment the hook (7) of the chandelier fitting is provided with a single bend at its free end to form a straight portion (15). The framework of the chandelier is made from a strip (12) including a slot (10) located opposite a raised portion (16) of the strip (12) which forms a hole (17) which is aligned with the slot (10) as shown in FIGS. 5b, 5c and 5d. As in the previous embodiments the attachment means for the fitting is constructed as an integral part of the framework. As shown in the cross-sectional view of the framework in FIG. 5c the hole (17) is parallel but off-set to the slot (10).

The installation procedure for this embodiment is shown in FIGS. 5e to 5g. The framework is assumed to be manufactured with the strip (12) being located in a vertical position with the hole (17) underneath the slot (10). The chandelier trimming is then arranged as shown in FIG. 5e so that the end (15) of the hook (7) points downwards towards the hole (17) of the strip (12). The trimming and the hook then are moved towards the strip with a vertical downward motion so that the end of the hook (15) locates in the hole (17) and the shank of the hook (7) rests in the slot (10) as shown in FIG. 5f. In this final position the hook can not be separated from the framework in a horizontal outward or vertical downward motion.

This embodiment of the invention is also suitable for chandeliers which have to be hung close to the ceiling.

A further embodiment of the present invention is shown in FIGS. 6a-6d, this embodiment being particularly suitable when the framework of the chandelier is manufactured from a plate. For attaching the chandelier trimming the framework is provided with an elongated slot (16) and an open slot (10). The hook (7) is terminated by a "U"-shaped bend (8), and the shank of the hook (7) is bent to form a portion (9), the bend being in the direction of the "U"-shaped bend (8). As shown in FIG. 6b the chandelier trimming is inclined so that the "U"-shaped bend (8) can enter the slot (16) and the fitting (1) is then retracted and lowered so that the portion (9) of the shank of the hook (7) locates into the slot (10). The distance between the "U"-shaped bend (8) and the portion (9) is chosen so that the "U"-shaped

6

bend (8) encompasses a portion of the framework (17) when the portion (9) is located in the slot (10). In this way the hook can not be removed from the plate in a horizontal outward or vertical downward motion when the trimming is in the final position. FIG. 6d shows the trimming in the final position as seen from above. This embodiment is particularly suitable for installing chandeliers in a "close-to-the-ceiling" position.

The sixth embodiment of the present invention is shown in FIGS. 7a-7f in which the hook (7) is terminated by a substantially "U"-shaped bend (8) including an end portion (14) bend in the opposite direction to the "U"-shaped bend. The end portion (14) is preferably straight. In order to permanently set the position of the jewel to obtain the correct position a further bend (18) is provided in the shank of the hook, this bend lying at the opposite end of the "U"-shaped bend from the end portion (14) as shown in FIG. 7a. The framework of the chandelier is preferably manufactured from a strip (12) and is provided with a hole (19) and a slot (10), the hole (19) being aligned with the open slot (10).

The installation procedure of this embodiment is shown in FIGS. 7d to 7f. The framework of the chandelier is preferably manufactured with the strip (12) lying horizontally as shown in FIG. 7d. The trimming (1) is then positioned vertically above the strip (12) so that the end portion (14) of the hook can be located in the hole (19). FIG. 7e shows an intermediate position in which the trimming has been rotated and lowered so that the end portion (14) of the hook (7) passes completely through the hole (19). FIG. 7f shows the final position of the trimming where the trimming (6) has been lowered so that it rests roughly in a horizontal position and the inside arm of the "U"-shaped bend (8) is located in the slot (10). The exact position of the trimming (6) is determined by the degree of bend of the bends (18) and (11). In the final position the hook can not be separated from the strip in a horizontal outward or vertical downward motion.

In all the embodiments of the present invention the hook (7) is preferably manufactured from a wire and the framework is preferably manufactured from a strip or plate. However, the scope of the present invention covers any form of hook or framework which is described by the claims.

I claim:

1. A Chandelier including chandelier trimmings connected with a hook means and a framework for carrying said hook means by an attachment means, characterized by said attachment means being two openings spaced apart by a first distance, one of the openings being a first open-ended slot, wherein the hook is free from contact with the framework outwardly of the slot.
2. A chandelier as claimed in claim 1, wherein the other of said openings is a hole having a width of a second distance.
3. A chandelier as claimed in claim 2 wherein the open portion of the slot is located at an end of the slot opposite the hole.
4. A chandelier as claimed in claim 2 wherein the hole is elongated and defines an axis in the direction of elongation, and wherein the slot lies on said axis.
5. A chandelier as claimed in claim 1, 3 or 4 wherein the hook means includes a bend for setting the position of a jewel in the chandelier.
6. A chandelier as claimed in claim 1, 3 or 4 wherein the hook means includes two spaced-apart bends for setting a jewel in the chandelier.

5,109,325

7

7. A chandelier as claimed in claim 6 wherein the hook means is formed from a wire and the attachment means lie substantially in one plane.

8. A chandelier as claimed in claim 1, 2, 3 or 4 wherein the hook means is formed from a wire and the attachment means lie substantially in one plane.

9. A chandelier as claimed in claim 2 or 3 wherein the hole defines a plane substantially perpendicular to a plane defined by the open-ended slot.

10. A chandelier as claimed in claim 9 wherein the hook means has a shank and a free end and wherein the hook means is formed at its free end with a substantially "L"-shaped bend.

11. A chandelier as claimed in claim 10 wherein the hole is integrally formed from a raised portion of the framework.

12. A chandelier as claimed in claim 2, 3 or 4 wherein the hook means is formed at its free end with a substantially "U"-shaped portion having two arms, the free end of the "U"-shaped portion being further bent in an opposite direction thereto to form an end portion.

13. A chandelier as claimed in claim 12 wherein the end portion is straight.

14. A chandelier as claimed in claim 12 wherein the "U"-shaped portion is formed from a double bend with a straight portion therebetween, on a side of the "U"-shaped portion facing the framework.

15. A chandelier as claimed in claim 12 wherein the arms of the "U"-shaped portion are separated by an amount which is larger than said first distance.

16. A chandelier as claimed in claim 12 wherein the arms of the "U"-shaped portion are separated by an amount which is at least substantially equal to said first distance and at a maximum equal to the sum of said first and second distances.

17. A chandelier as claimed in claim 12 wherein the hook means is formed from a wire and the attachment means lie substantially in one plane.

18. A chandelier as claimed in claim 2, 3, 4, or 5 wherein the hole is circular.

19. A chandelier as claimed in claim 18 wherein the hook means is formed at its free end with a substantially "U"-shaped portion, the free end of the "U"-shaped portion being further bent in an opposite direction thereto to form an end portion.

20. A chandelier as claimed in claim 19 wherein the end portion is straight.

21. A chandelier as claimed in claim 19 wherein the hook means is formed from a wire and the attachment means lie substantially in one plane.

22. A chandelier as claimed in claim 4 wherein the hole defines a plane and wherein the open-ended slot lies substantially in the plane.

8

23. A chandelier as claimed in claim 1 wherein the hook means has a shank and a free end, the hook means being formed at its free end with a substantially "U"-shaped bend having two arms, the arms thereof being substantially parallel in the installed position to the plane of the slots, and further being provided with a bend in the shank of the hook means in the same direction as the direction of the bend of the "U"-shaped portion.

24. A chandelier as claimed in claim 23 wherein the hole is elongated, the "U"-shaped bend is located in the elongated hole and the bend in the shank is located in the open slot and is spaced from said "U"-shaped portion by an amount substantially equal to said first distance.

25. A chandelier as claimed in claim 23 wherein the hook means is formed from a wire and the attachment means lie substantially in one plane.

26. A chandelier as claimed in claim 1, wherein the other of said openings is a second open-ended slot having a length of a second distance.

27. A chandelier as claimed in claim 26 wherein the hook means has a shank and a free end, the hook means being formed at its free end with a substantially "U"-shaped bend having two arms, the hook means further being provided with a stop means at its free end.

28. A chandelier as claimed in claim 27, wherein the stop means is a solid head having a diameter greater than a width of one of the slots.

29. A chandelier as claimed in claim 27, characterized in that the arms of the "U"-shaped bend are separated by an amount which is at least substantially equal to said first distance and at a maximum equal to the sum of said first and second distances.

30. A chandelier as claimed in claim 27 wherein the hook means is formed from a wire and wherein the attachment means lie substantially in one plane.

31. A chandelier as claimed in claim 27 wherein the stop means is selected from the group consisting of a loop and a ring.

32. A chandelier as claimed in claim 26, wherein the open-ended slots have open ends facing away from one another.

33. A chandelier as claimed in claim 26, wherein the second open-ended slot is elongated and defines an axis in the direction of elongation, and wherein the first open-ended slot lies on said axis.

34. A chandelier as claimed in claims 26, 32, or 33, wherein the hook means includes a bend for setting the position of a jewel in the chandelier.

35. A chandelier as claimed in claim 26, 32, or 33 wherein the hook means is formed from a wire and wherein the attachment means lie substantially in one plane.

\* \* \* \* \*

**EXHIBIT D**



US005222805A

**United States Patent [19]**

Schonbek et al.

**[11] Patent Number: 5,222,805****[45] Date of Patent: Jun. 29, 1993****[54] PRECISION CHANDELIER FRAME**

[75] Inventors: Andrew J. Schonbek; Georg Bayer; Arnold Schonbek, all of Plattsburgh; Daniel A. Tucker, Chazy, all of N.Y.

[73] Assignee: Schonbek Worldwide Lighting Inc., Plattsburgh, N.Y.

[21] Appl. No.: 813,431

[22] Filed: Dec. 24, 1991

**Related U.S. Application Data**

[63] Continuation-in-part of Ser. No. 539,854, Jun. 18, 1990, abandoned.

[51] Int. Cl.<sup>5</sup> F21S 1/06

[52] U.S. Cl. 362/405; 248/343

[58] Field of Search 362/405, 406, 442; 248/222.3, 344, 343, 342

**[56] References Cited****U.S. PATENT DOCUMENTS**

1,032,660 7/1912 Czerny ..... 362/405 X  
1,534,662 4/1925 Riddle ..... 362/405

1,644,452 10/1927 Spencer ..... 362/408  
1,668,772 5/1928 Kestell ..... 362/405  
2,437,350 3/1948 Ferlin et al. ..... 362/241  
3,530,289 9/1970 Friedman et al. ..... 362/332  
4,107,770 8/1978 Weber ..... 362/405

**FOREIGN PATENT DOCUMENTS**

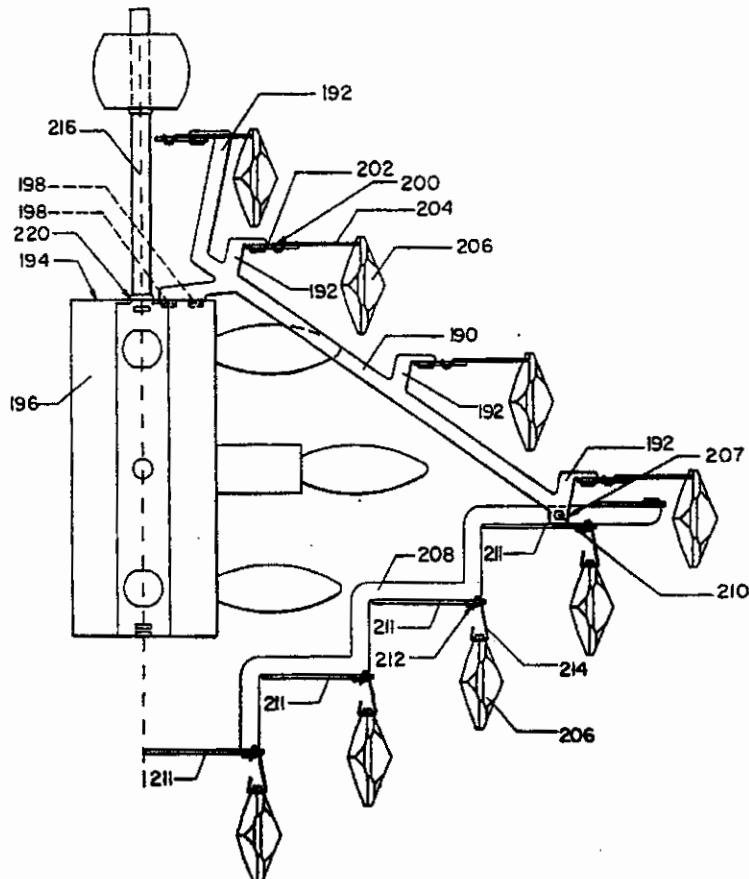
2445486 12/1978 France .

*Primary Examiner—Stephen F. Husar  
Attorney, Agent, or Firm—Wolf, Greenfield & Sacks*

**[57]****ABSTRACT**

A chandelier frame made from rings and spokes is provided. The rings are adapted for supporting ornaments, and the spokes are attached to the rings for supporting the rings, preferably coaxially. The rings and spokes are attached to one another by interengaging locking means which mechanically and detachably secure the rings and spokes to one another. The rings and spokes may be formed entirely from nonstressed metal, and most preferably are cut from flat sheet metal.

29 Claims, 15 Drawing Sheets

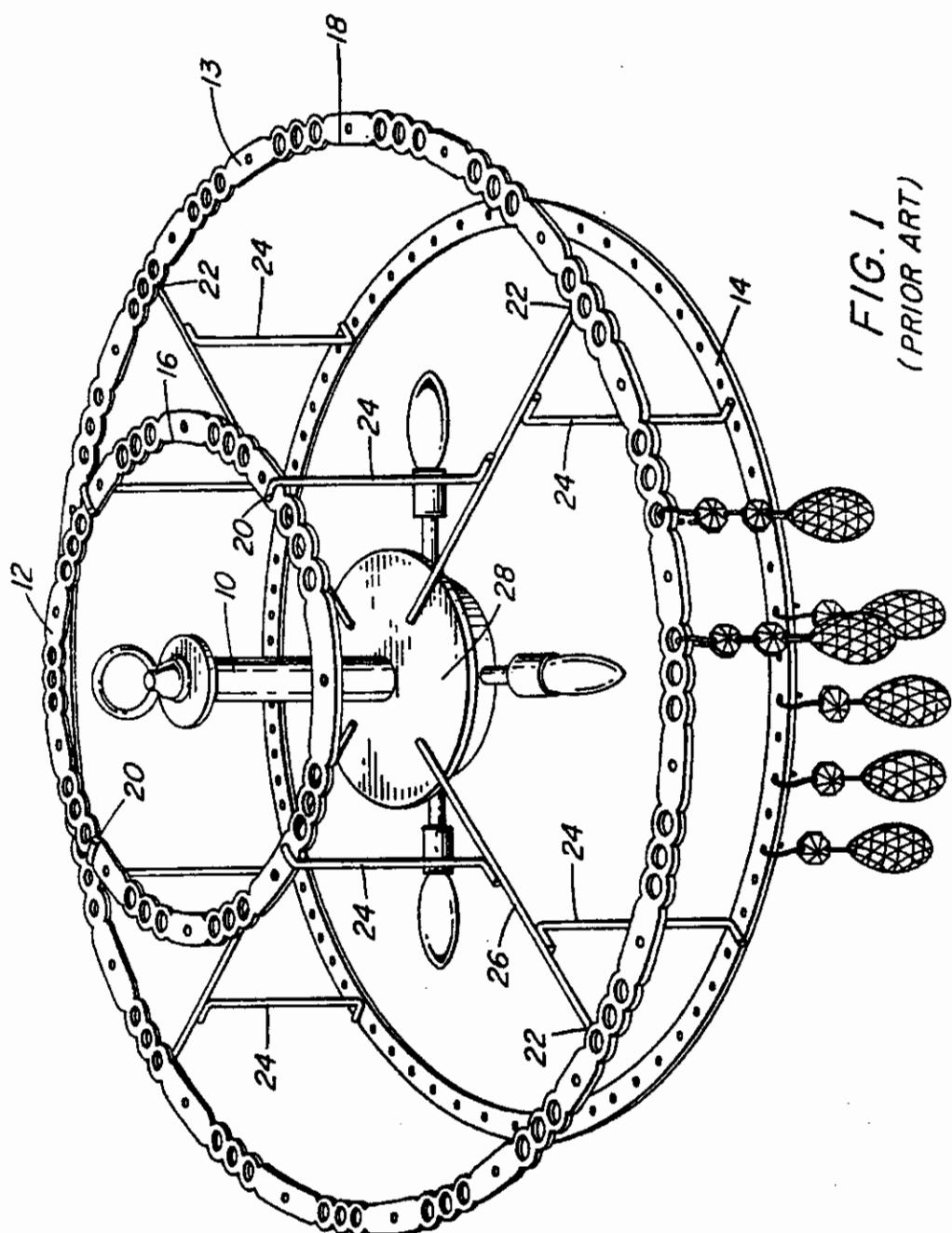


U.S. Patent

June 29, 1993

Sheet 1 of 15

5,222,805



U.S. Patent

June 29, 1993

Sheet 2 of 15

5,222,805

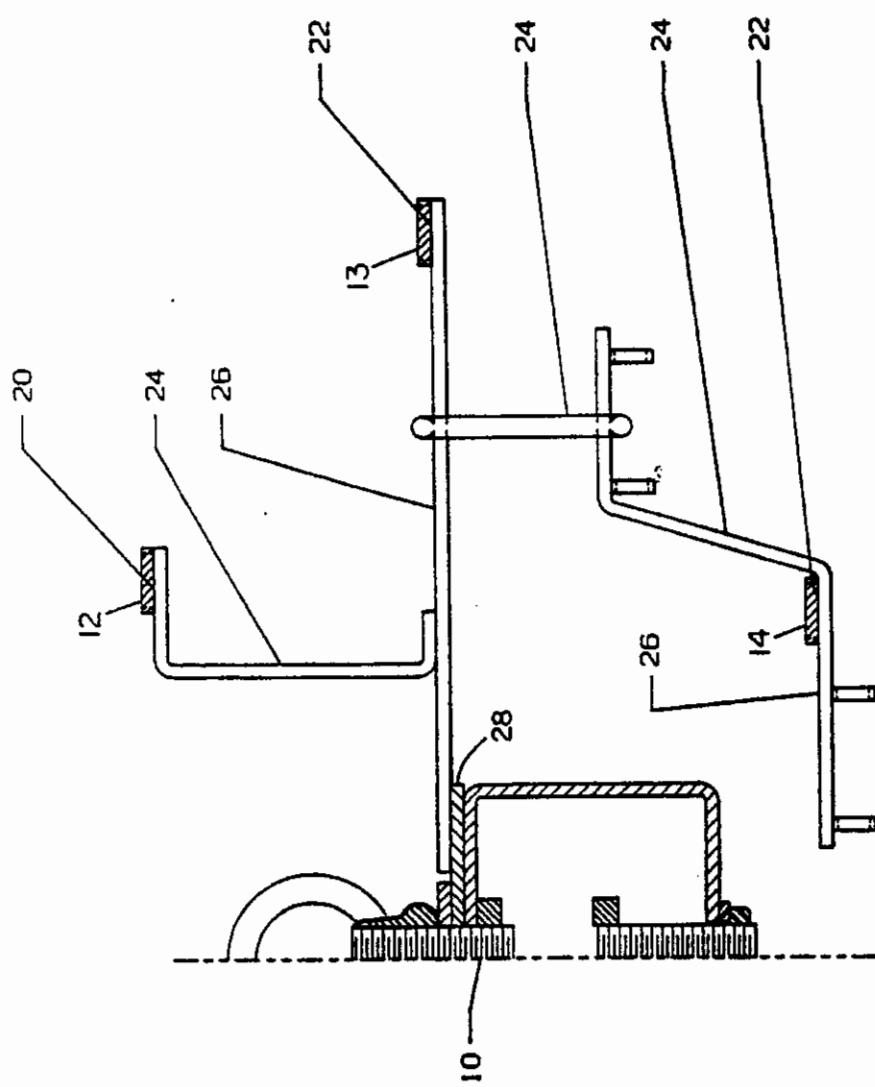


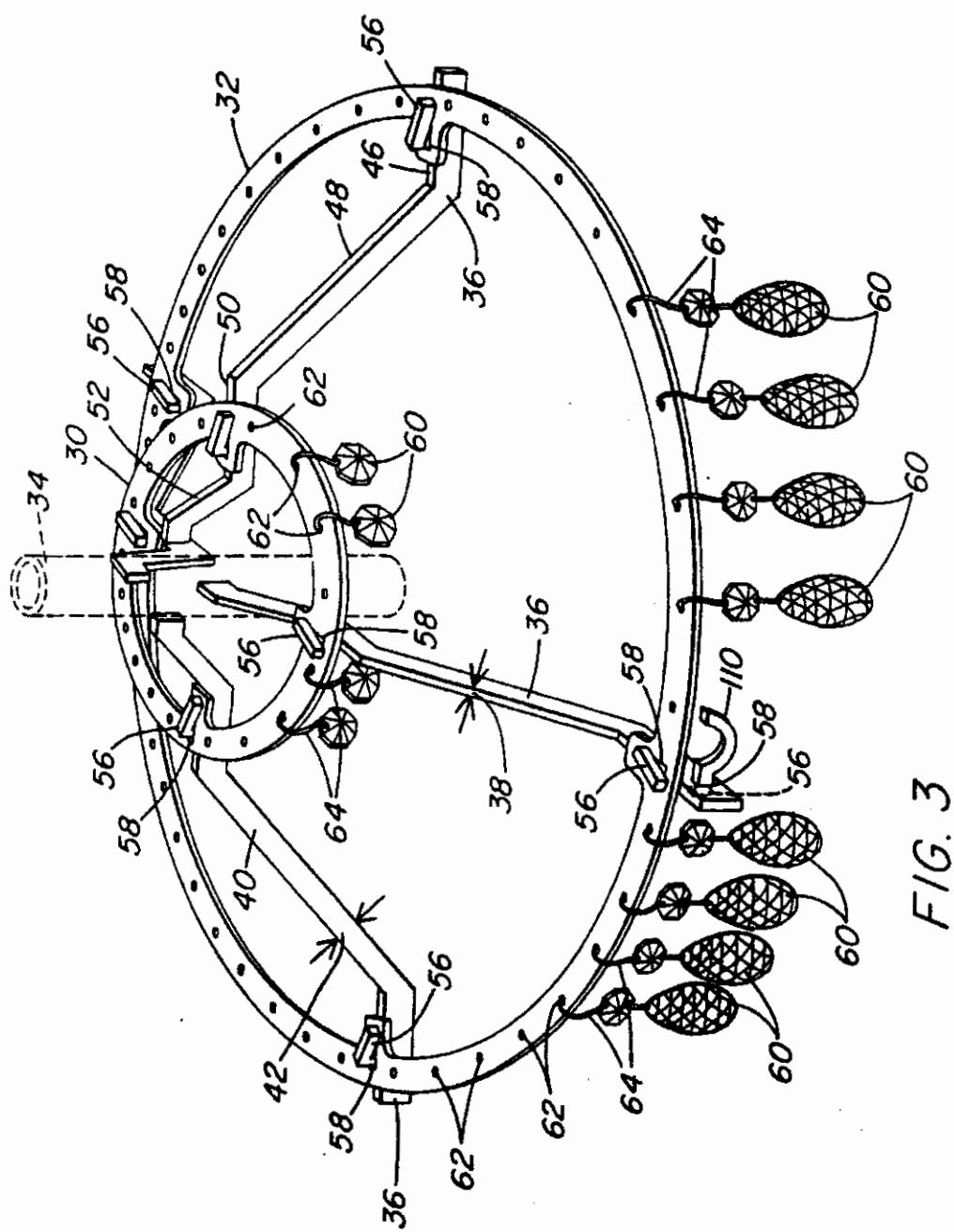
FIG. 2 (PRIOR ART)

U.S. Patent

June 29, 1993

Sheet 3 of 15

5,222,805

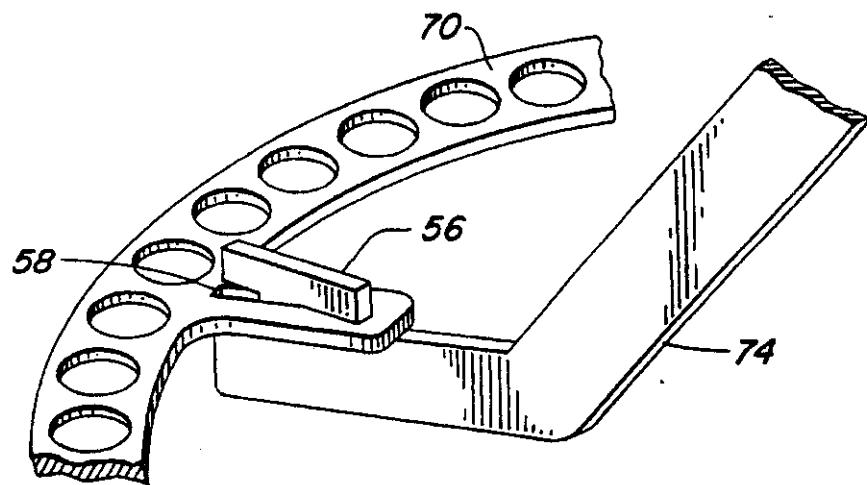


**U.S. Patent**

June 29, 1993

Sheet 4 of 15

**5,222,805**



*FIG. 4*

U.S. Patent

June 29, 1993

Sheet 5 of 15

5,222,805

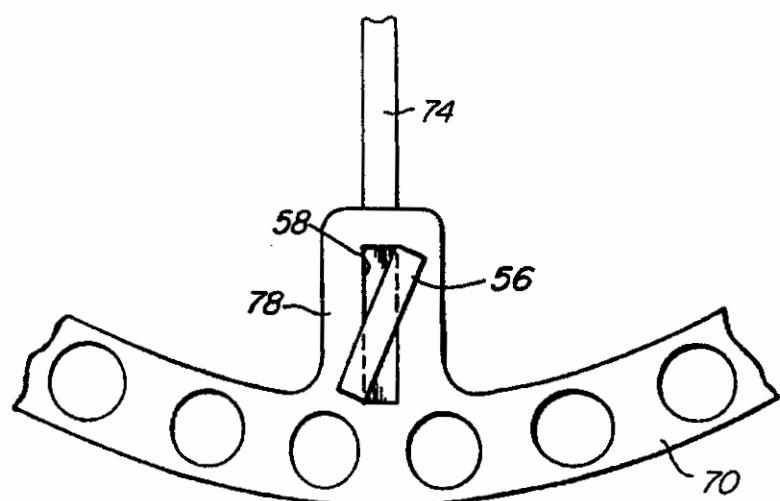


FIG. 5

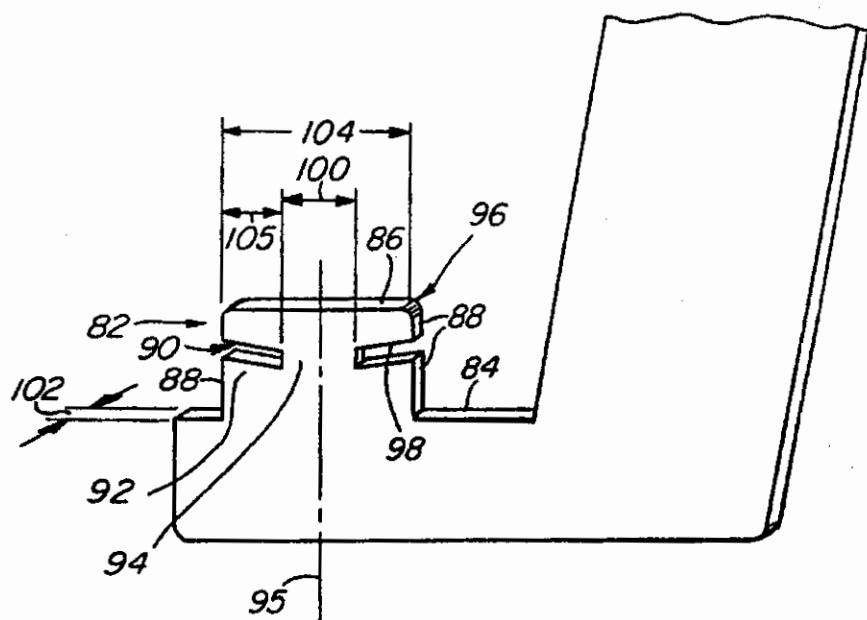


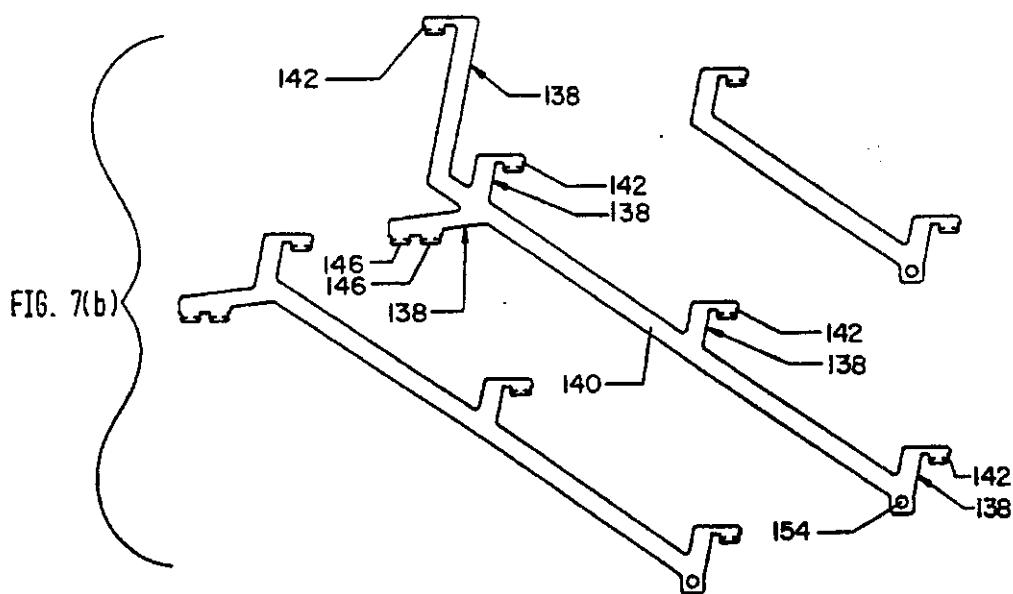
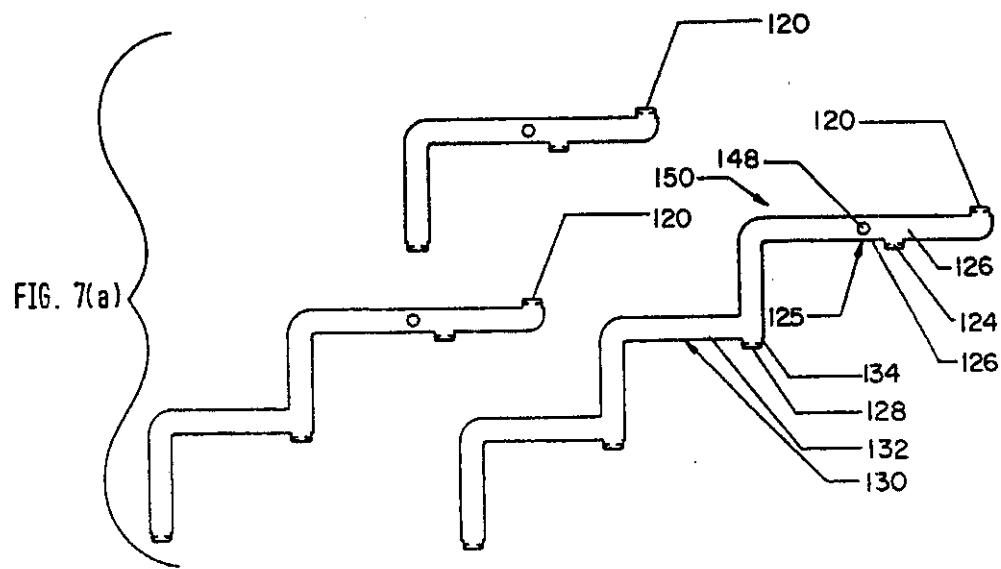
FIG. 6

**U.S. Patent**

June 29, 1993

Sheet 6 of 15

5,222,805



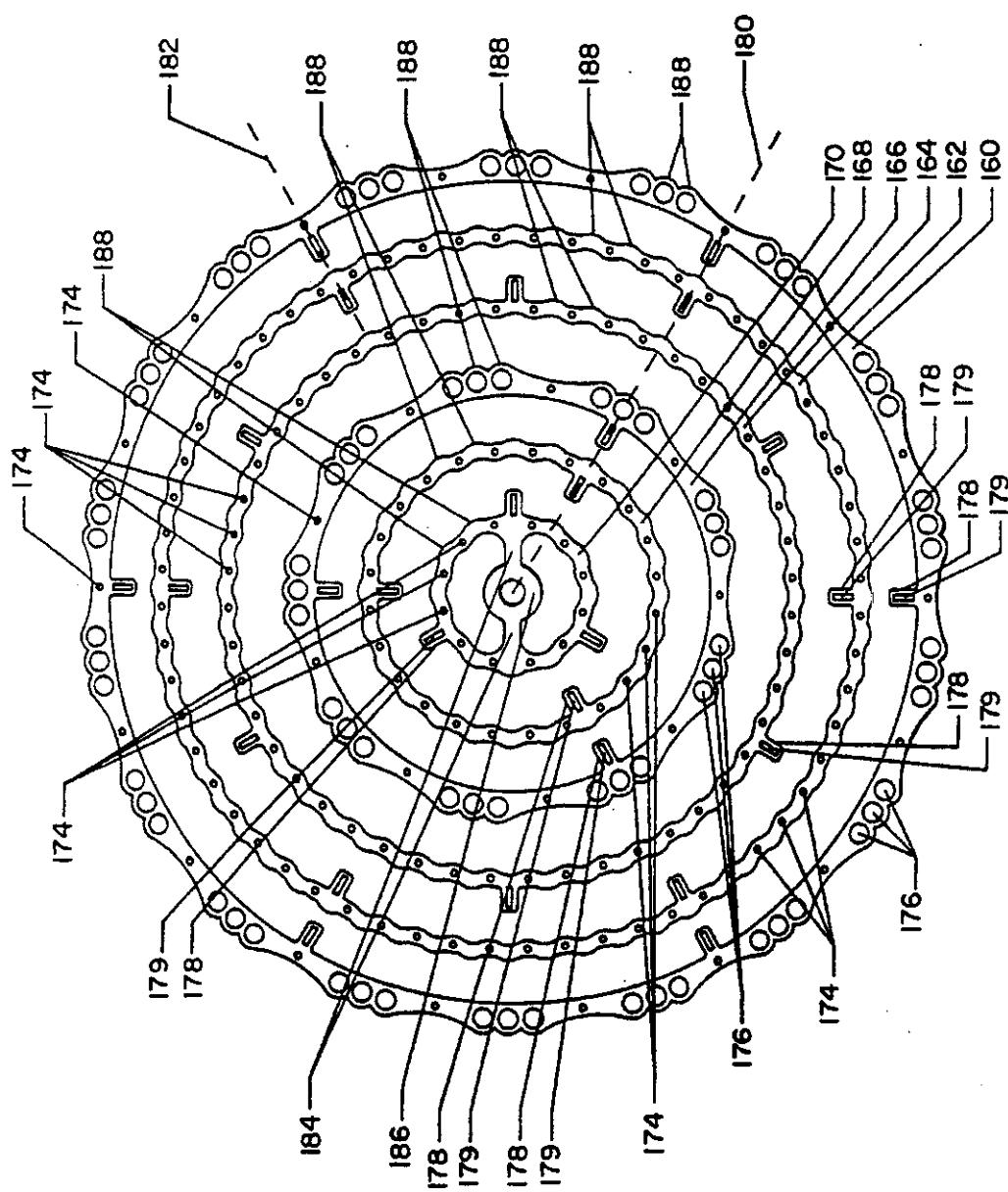
U.S. Patent

June 29, 1993

Sheet 7 of 15

5,222,805

FIG. 8



U.S. Patent

June 29, 1993

Sheet 8 of 15

5,222,805

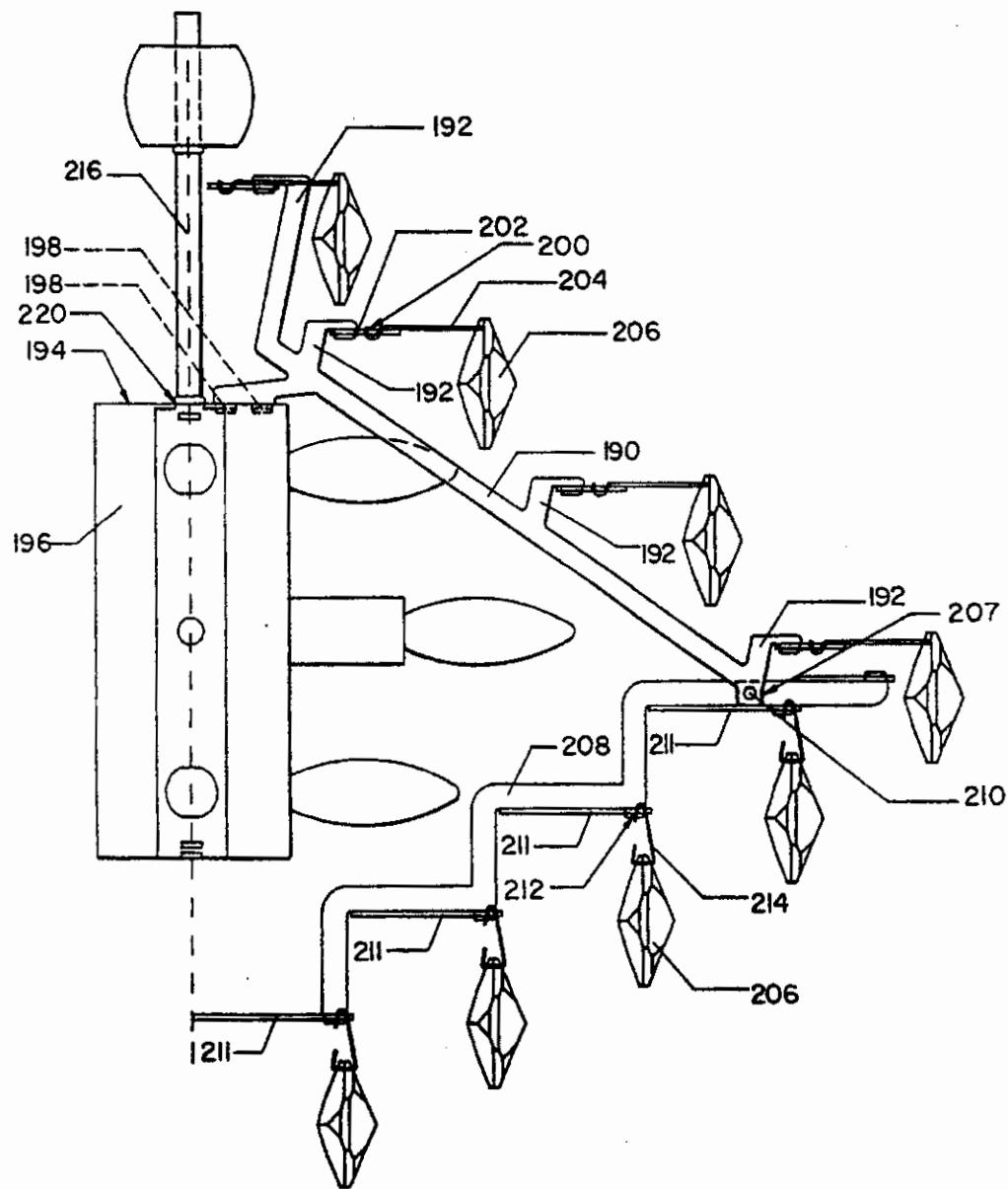


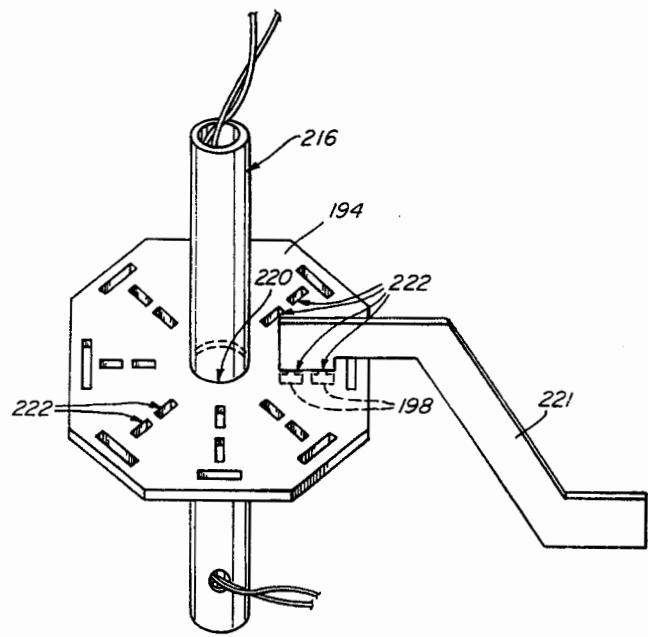
FIG. 9

U.S. Patent

June 29, 1993

Sheet 9 of 15

5,222,805



*FIG. 10*

U.S. Patent

June 29, 1993

Sheet 10 of 15

5,222,805

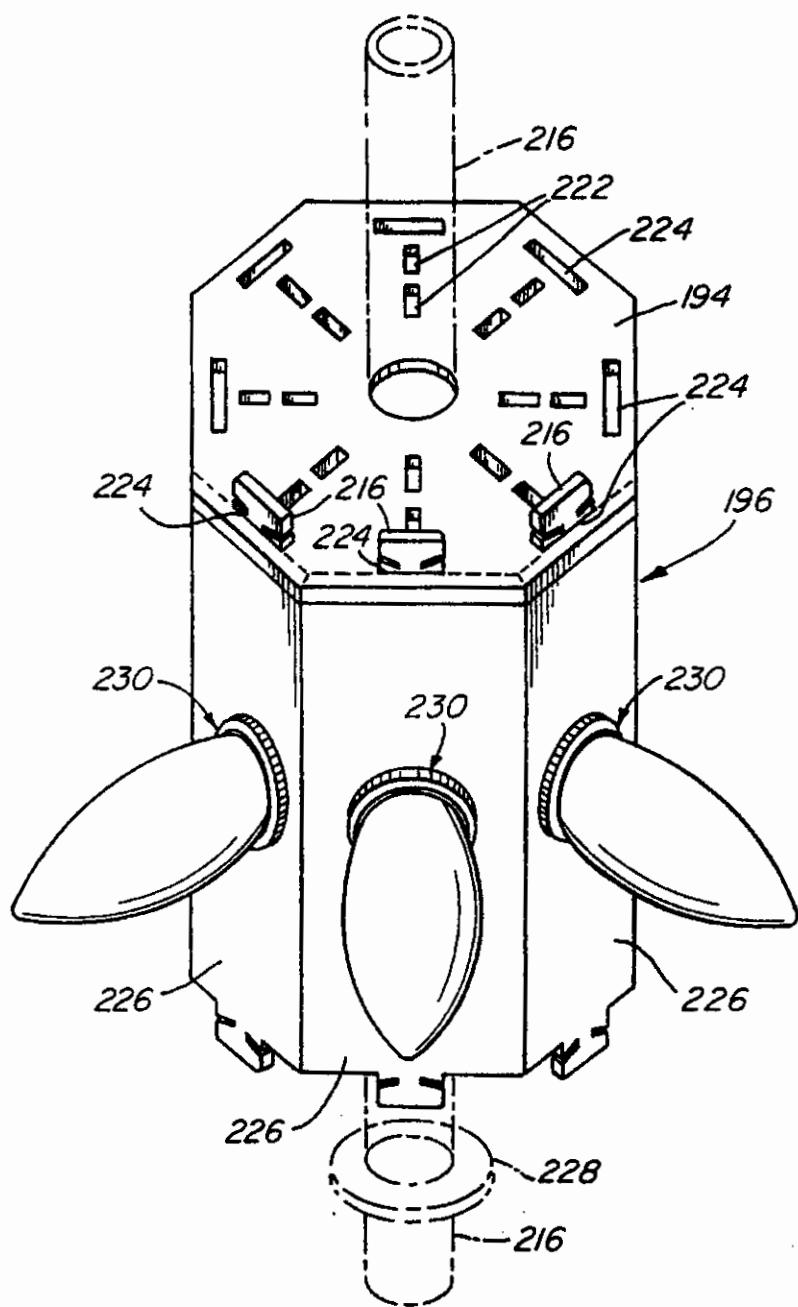


FIG. 11

U.S. Patent

June 29, 1993

Sheet 11 of 15

5,222,805

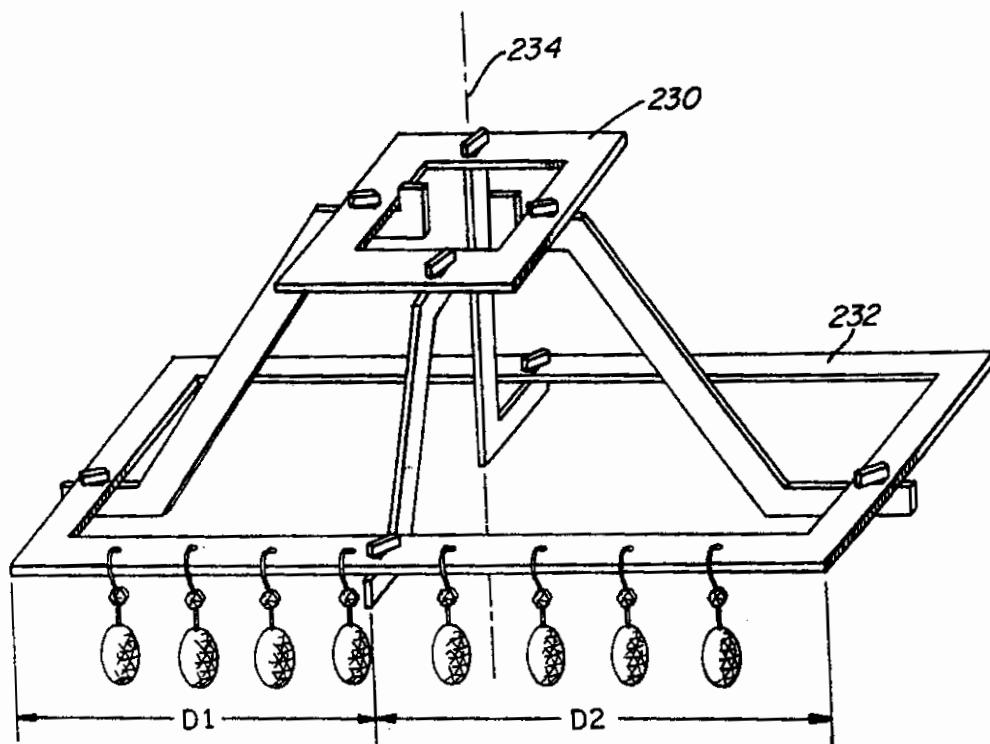


FIG. 12

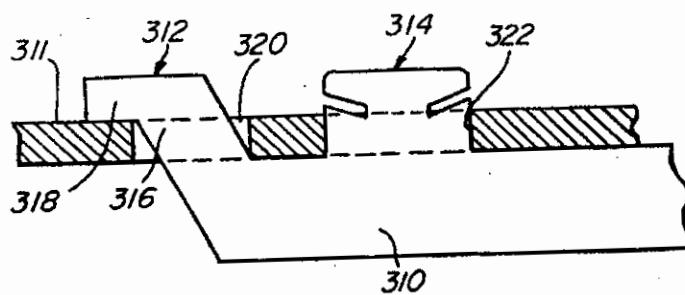


FIG. 13

U.S. Patent

June 29, 1993

Sheet 12 of 15

**5,222,805**

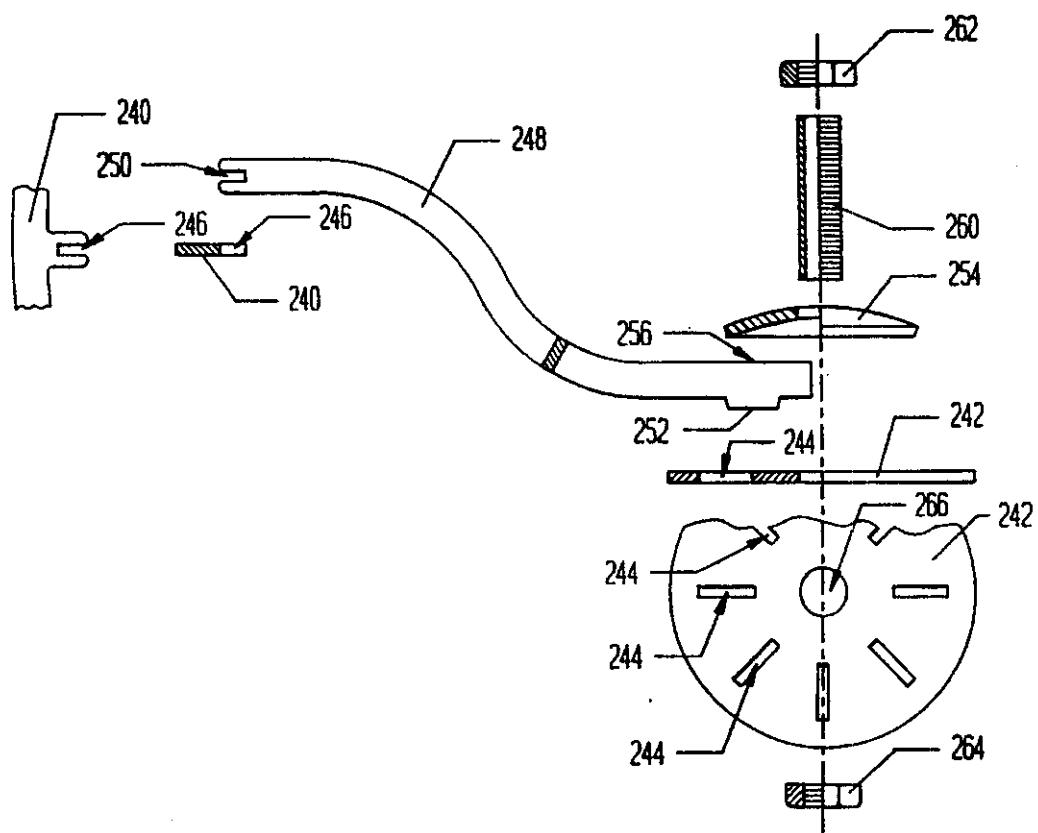


FIG. 14

U.S. Patent

June 29, 1993

Sheet 13 of 15

5,222,805

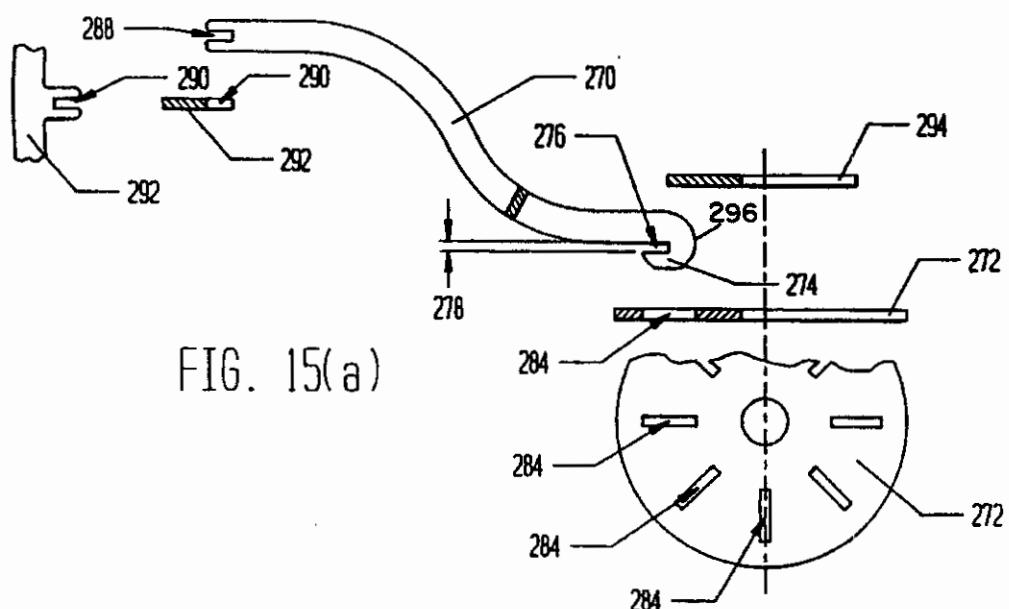


FIG. 15(a)

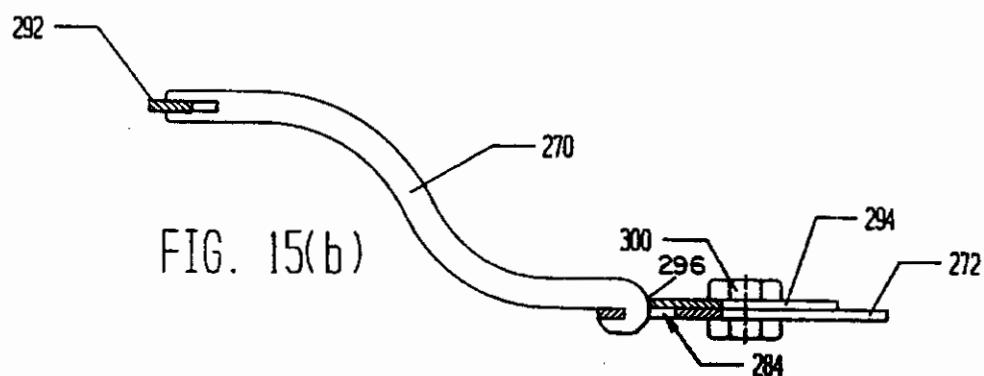


FIG. 15(b)

U.S. Patent

June 29, 1993

Sheet 14 of 15

5,222,805

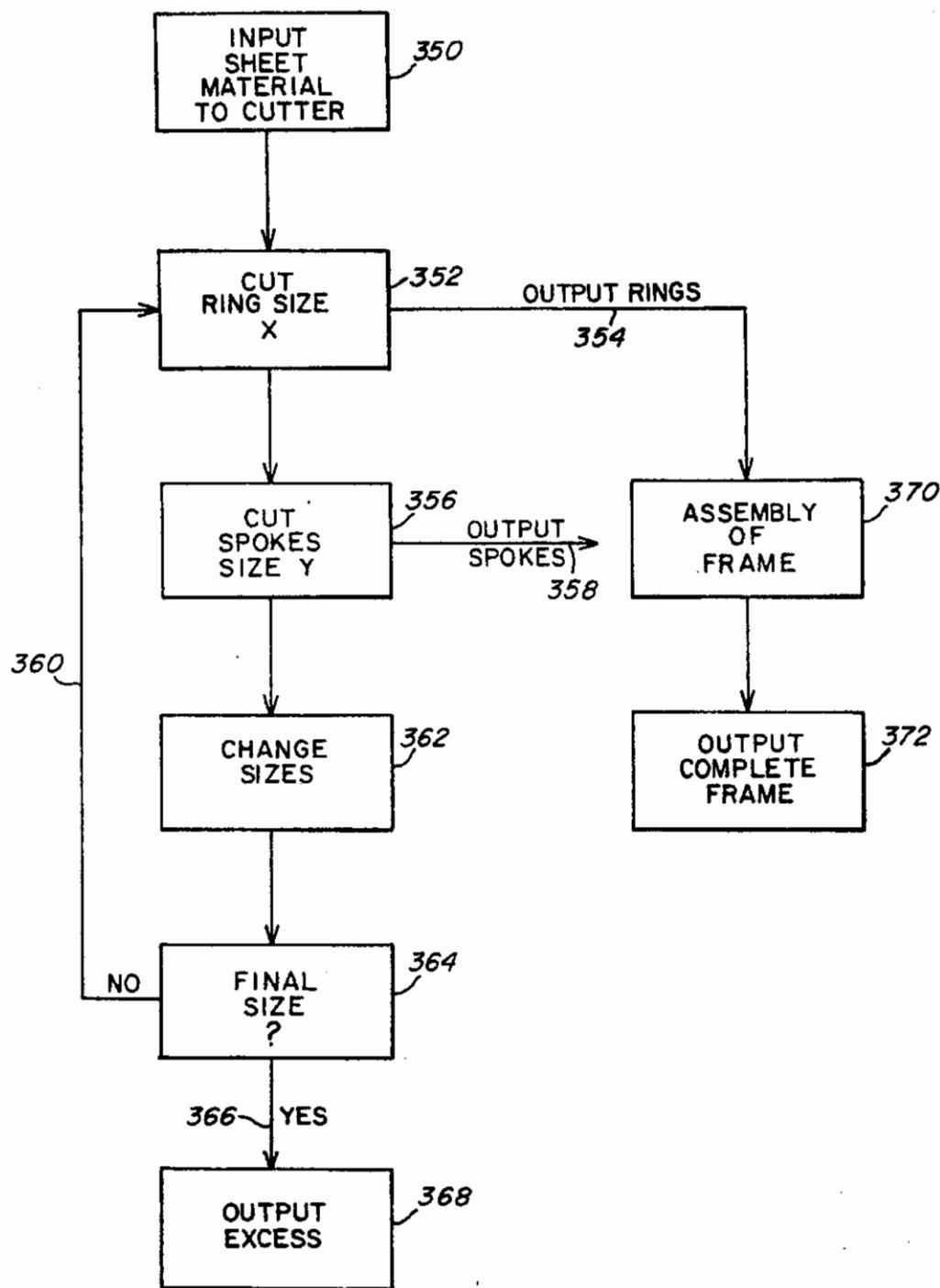


FIG. 16

U.S. Patent

June 29, 1993

Sheet 15 of 15

5,222,805

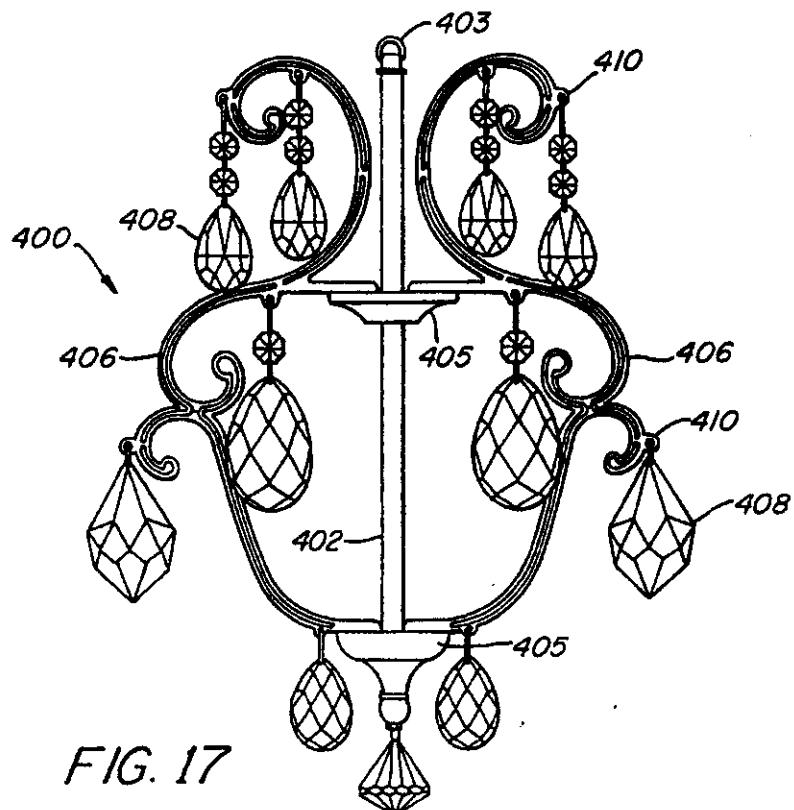


FIG. 17

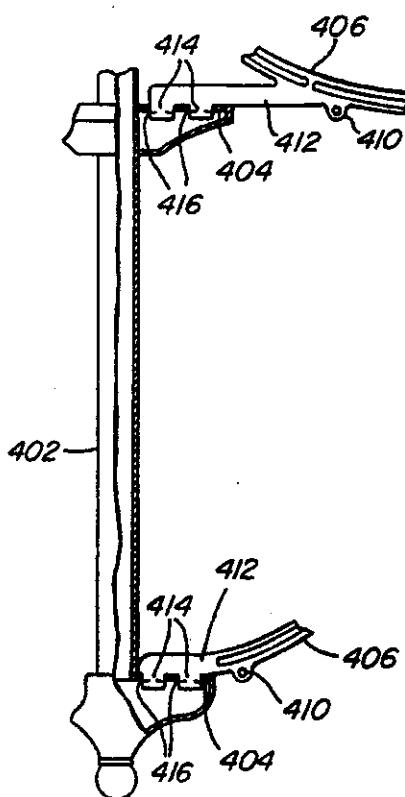


FIG. 18

5,222,805

1

2

## PRECISION CHANDELIER FRAME

This application is a continuation-in-part of U.S. Ser. No. 07/539,854 filed Jun. 18, 1990 and entitled PRECISION CHANDELIER FRAME, now abandoned, entire disclosure of which is incorporated herein by reference.

This invention relates generally to chandelier frames and, in particular, to chandelier frames adapted for supporting ornaments such as crystals in a precise array with respect to one another and with respect to a light source.

## BACKGROUND OF THE INVENTION

The art of making chandelier frames has varied only slightly in the past hundred years. Most chandelier frames include a plurality of hoops of varying diameter arranged coaxially and adapted for supporting ornaments such as crystals. The hoops are supported by spokes. According to typical prior art constructions, the hoops are formed from straight pieces of metal which are bent into the form of rings and welded together at their free ends. The spokes also are formed typically from straight pieces of metal bent and welded to one another. Prior art chandelier frames further typically have portions held together by screws, rivets, eyelets and the like.

Where complex chandelier frames such as those described herein are concerned, the prior art methods of manufacture may involve well over a hundred discrete bending and attachment operations and may require numerous work stations. The labor and organization required to make a variety of such chandeliers is extraordinary.

A prior art chandelier frame shown in FIGS. 1 and 2 is similar in function to a chandelier according to the invention shown in FIG. 3. Its parts are made of stressed (bent) metal and held together by welds. The prior art chandelier frame has a center post 10 to which is attached upper, middle and lower hoops, 12, 13 and 14 respectively. The hoops 12, 13, 14 may be bent from straight stock such as rod, flat or tube stock into a circular shape that is welded at joints, 16 and 18 respectively, to permanently join each hoop's free ends. The hoops may be die cut (hoop 13). The stressed hoops are attached, at points 20 and 22 to a series of upright spokes 24 and radially extending spokes 26. These spokes 24, 26 also are bent at various places. The spokes 24, 26 are welded to each other. This welded collection of parts is secured centrally by welds to a center washer 28 disposed about the center post 10.

The bending of hoops and spokes introduces imprecisions into the frame. A stressed hoop usually is far from symmetrical both radially and axially. When combined with all the welding required, the misalignment and imprecision of each frame is substantial. This lack of symmetry has a substantial effect on the overall appearance of the finished chandelier in that crystal ornaments are not precisely located with respect to one another, thereby diminishing the overall appearance of the chandelier. Additionally, no easy means of alignment of all the pieces to prepare them for welding is possible with the prior art frame. Moreover, welds often are imperfect and the hoops and spokes may come apart. These and other drawbacks are overcome by the chandelier frames of the invention.

5,222,805

## SUMMARY OF THE INVENTION

The invention involves a novel method for manufacturing, aligning and mechanically interengaging the component parts of a chandelier frame. The chandelier frames made according to the invention have a symmetry, both radially and axially, that is far superior to the prior art. The chandelier frames of the invention are easy to manufacture, and do not involve welds, rivets, screws, eyelets and the like for the interengagement of their component parts. The frames also may be easily disassembled for repair or for replacing parts.

According to the invention, a chandelier frame made from rings and spokes is provided. The rings are adapted for supporting ornaments, and the spokes are attached to the rings for supporting the rings, preferably coaxially. The rings and spokes are attached to one another by interengaging locking means which mechanically and detachably secure the rings and spokes to one another. The rings and spokes may be formed entirely from nonstressed metal, and most preferably are cut from flat sheet metal.

Preferably, the rings and spokes are held together by interlocking tabs and slots, the tabs and slots being pre-formed and located at discrete positions to precisely align the rings and spokes with respect to one another. Most preferably, the tabs include a head and a neck, the neck having a narrower diameter than the head. The tabs may be located on a plurality of arm segments integral with and extending from a main segment of the spokes and defining platforms for seating the rings. In a most preferred embodiment, at least a portion of one of the slots and tabs is cut using a laser.

According to another aspect of the invention, the spokes are aligned and attached mechanically to a centrally located plate, preferably by interlocking tabs and slots. That plate may form a portion of a centerpiece such as a light box, which itself may be manufactured from flat material joined together by interlocking tabs and slots.

## BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing objects and advantages of the present invention will be more clearly understood in connection with the accompanying drawings in which:

FIG. 1 is a perspective view of a prior art chandelier frame having stressed hoops and spokes welded to one another;

FIG. 2 is a partial cross-sectional side view of the prior art chandelier frame of FIG. 1;

FIG. 3 is a perspective view of a chandelier frame constructed according to this invention;

FIG. 4 is a more detailed perspective view of a spoke and ring of the chandelier of FIG. 3, showing an interengaging tab and slot;

FIG. 5 is a top view of a tab and slot as shown in FIG. 4 showing the tab twisted to lock the slotted part to the tabbed part;

FIG. 6 is a more detailed perspective view of a twist tab according to this invention;

FIG. 7(a-b) are side views of various spokes having tabs disposed upon segments for interengaging rings and center pieces;

FIG. 8 is a top view of a series of concentric rings having elaborate edge details for use with the spokes of FIG. 7;

FIG. 9 is a partial side view of a chandelier frame constructed from spokes and rings of FIGS. 7 and 8;

5,222,805

3

FIG. 10 is a perspective view detailing the attachment of a spoke to the top plate of a center piece used in the chandelier of FIG. 9;

FIG. 11 is a perspective view detailing the construction of the center piece of the chandelier of FIG. 9 with spokes removed;

FIG. 12 is a perspective view of an obliquely-constructed, noncircular chandelier frame according to this invention;

FIG. 13 is a cross-sectional view of another interlocking tab and slot arrangement according to this invention;

FIG. 14 is a side view of an alternative structure for mechanically interlocking the rings and spokes of a chandelier frame;

FIGS. 15(a-b) is a variation of the chandelier frame of FIG. 13 having a different structure for mechanically interlocking the rings and spokes;

FIG. 16 is a flow chart of a construction process of a chandelier frame according to this invention;

FIG. 17 is a perspective view of a portion of another embodiment of the invention; and

FIG. 18 is an enlarged cross-sectional view of a portion of the chandelier of FIG. 17 showing the interengagement of the spokes with the rings.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

A chandelier frame is shown in a preferred embodiment in FIG. 3 which illustrates multiple aspects of the invention. The depicted chandelier frame may be manufactured from flat, nonstressed sheet material without the use of welds, eyelets, screws or rivets to join any of the parts together. As described further below, the use of non-stressed parts, cut precisely, aligned and assembled without the use of bending, welds or other deforming processes, results in a superior product. High structural tolerances are possible that significantly enhance the optical effects obtainable with a chandelier built in this manner. This product is also easy to assemble.

The embodiment depicted in FIG. 3 utilizes coaxial upper and lower rings, 30 and 32 respectively, disposed about and relative to a center piece 34 shown in phantom. The rings are aligned and separated from each other by attachment to a set of spokes 36 radially positioned relative to the center piece 34.

Due to the novel alignment and attachment arrangement of the invention, the pieces of the chandelier frame of FIG. 3 may be cut from flat sheet material. They remain substantially nonstressed in final assembled form with no bending required to place them into the proper configuration. This is a significant distinction over the prior art.

The spokes 36 and rings 30, 32 of the embodiment depicted in FIG. 3 define a thickness 38 transverse to their flat surfaces 40. The thickness 38 is substantially less than the width 42 of the flat surfaces. As such, each piece tends to define a plane, the rings defining parallel planes and the spokes defining planes substantially perpendicular to these parallel planes. The plane of the 60 spokes is generally oriented vertically in use, contributing to the strength of the frame.

The edge of the spokes 36 transverse to the flat surfaces 40 and facing the rings 30, 32 define nonlinear segments 46, 48, 50 and 52 (i.e., the straight segments meet one another at angles). Two of these segments 46 and 50 define parallel platforms that support a flat side of the upper and lower rings 30, 32, respectively. These

4

platforms, thus, make possible the integral combination of both spacing the rings 30, 32 axially along the center piece 34 and aligning the rings 30, 32 coaxially with respect to the center piece 34.

The platforms 46, 50 preferably include tabs 56 extending from the platform and engaging integrally formed through-cut slots 58 cut at predetermined locations in the rings 30, 32. The tabs 56 and slots 58 allow for positive mechanical interengagement of the rings 30, 32 and the spokes 36. The tabs 56 and slots 58 also precisely align the rings 30, 32 radially relative to one another and to the spokes 36. Through this interengagement, the rings then are secured in position against rotation about the center piece 34 and displacement radially relative to the center piece 34. As such, ornaments 60 depending from different rings (which ornaments are located through preformed holes 62 by means of hooks 64) maintain a precise alignment with respect to one another for an enhanced optical effect. Such precise alignment of ornaments of different rings was unachievable according to prior art chandelier frame constructions.

The mechanical interengagement of the tabs and slots allows a chandelier frame to be quickly assembled without the use of any welding, adhesives, screws or rivets. The tabs are of a unique design having close tolerances and, thus, are particularly well suited to cutting techniques including laser cutting. The tabs may be cut simultaneously and be formed integrally with the overall cutting of the chandelier part.

A more detailed view of the mechanical interengagement of a spoke and ring via a preferred tab and slot arrangement is depicted in FIG. 4. A portion of a ring 70 is shown resting in face to face relation upon a platform 74 of a spoke 74. The spoke 74 has an integrally formed tab 56 projecting through a slot 58 in the ring 70. The tab 56 may be twisted to provide positive locking interengagement of the ring 70 and spoke 74. This configuration is depicted in FIG. 5 in which the upper 40 portion of the tab 56 is twisted out of alignment with the slot 58 to contact the surfaces 78 of the ring 70 on opposing sides of the slot. The twist is accomplished primarily by deforming the narrow tab neck. This is the only stressing of the parts that is required. Thus, the structure is "substantially nonstressed". Since the deformation occurs at only small isolated points upon the chandelier frame where radial alignment of the rings relative to each other and to the center axis is fixed, the structural tolerance of the chandelier frame remains extremely high (less than 3/64 inch radial and axial tolerance). Additionally, the speed at which the tabs may be twisted allows for quick and simple assembly.

The details of a preferred tab are depicted in FIG. 6. The tab is constructed from a generally rectangular projection 82 formed integrally with a spoke and extending from a platform 84 for supporting a ring (not shown). Since die cuts generally are more precise than laser cuts, it is preferred that the tab and platform immediately adjacent the tab and forming the seat for the ring are die cut rather than laser cut. This will insure a snug fit between the tab and the ring slot and ensure proper seating of the ring on the platform.

The rectangular projection is defined by a top wall 86 and two side walls 88 extending from the top wall 86 to the platform 84. A pair of thin slots 90 are cut (preferably by a laser) into opposing side walls 88. The slots 90 extend toward one another and downwardly toward the platform 84, but stop short of meeting one another

so as to divide the rectangular projection into three portions, a seat 92 adjacent the platform 84, a narrowed neck 94 at the convergence of the slots 90 and a head 96 located above the slots 90. The head 96 may be gripped, preferably with a tool, and twisted about the narrow neck 94 along axis 95 passing centrally of the tab (in the direction of the tab passing through the slot) to bring the head 96 out of planar alignment with respect to the seat 92.

In use, a slotted part such as a ring is positioned on the platform 84 of, for example, a spoke, with a the tab extending through the slot. The seat 92 of the tab is sized to fit snugly within the ring slot so as to precisely align the ring and spoke and to prevent any significant lateral movement of the ring with respect to the spoke. The slots 92 on the tab are sized with respect to the ring such that they converge and form the neck 94 at a position within the ring slot when the ring is seated on the platform. The downwardly facing surfaces 98 of the head 96 likewise extend into the ring slot when the ring is seated on the platform. As such, when the tab head 96 is twisted, the downwardly facing surfaces 98 of the head 96 engage surfaces of the ring adjacent the slot and ensure a tight interlock between the ring and spoke. Motion in all degrees of freedom is prevented. In the embodiment shown, the tab slots 90 are straight. It should be understood, however, that other configurations, including slots defining a radius may be used, and may even be preferred.

The tab and slot interengagement also can be used in connection with securing spokes to plates, as in FIGS. 9, 10, or in securing spokes to center rings such as in FIG. 14. It further should be understood that the ornamental bearing aspect of the chandelier may the spoke rather than the ring. In particular, the rings, for example, may be disposed internally of the spokes which may be scrolled for an esthetically appealing appearance. (See FIGS. 17 and 18).

In a preferred embodiment, for effective locking, the neck width 100 is 1.7 times the spoke thickness 102, and the distance 105 from a sidewall 88 to the neck is 1.25 the spoke thickness. Similarly, the head width 104 is at least 4.2 times the spoke thickness 102. In one successful embodiment according to the invention, the sheet metal from which the spokes and rings were cut was a close tolerance, cold-rolled, steel sheet, flat roll and full hard, 14 gage thickness (0.074 inches,  $\pm 0.002$  thickness tolerance), obtained from Lapham Hickey, Chicago, Ill., under the trade designation C-1010 alloy. The neck width was about 0.125 inches, and the head width was about 0.3 inches. The slots forming the tab neck and head were 0.007" in thickness and converged at an angle of nine degrees relative to the platform. These slots were cut using a laser. The slots converged at the neck which was located 0.005" below the surface of the ring when the ring was seated on the platform. The ring slots which received the tabs were die cut to provide a clearance of 0.005 about the tabs.

The positive locking arrangement described above also makes possible the suspension of a slotted part in any orientation. Thus, a spoke may contain a tab and platform upon its downward facing side with a ring hanging from the spoke, having its weight supported only by the tab.

The use of the preferred tab and slot interengagement system is not limited solely to rings and spokes. As depicted in FIG. 3, the chandelier frame may have a slot disposed upon, for example, a spoke 36. Another part

such as a hook, having a tabbed projection may be attached to the slot on the spoke. In FIG. 3, a planar hook 110 cut from nonstressed sheet material and having a tab 56 shown in phantom is attached to a slot located at the lower extremity of spoke 40. This hook 110 may be used for hanging a second tier or "basket" of rings, or for other purposes.

It should be noted that other systems for securing the chandelier frame parts together are possible and may be required for nonmetallic or soft metal parts. Spokes and rings may be interengaged by a snap fit, in which one of the parts is forced into an interfering fit with another. Additionally, parts may be cut with opposing grooves that intermesh and maintain the parts in alignment with respect to each other and a central axis. These methods may involve the use of some welding, adhesives, or other techniques of joinery with, however, the significant advantage over the prior art in that the perpendicularly oriented planar construction and use of interengaging slots or tabs and slots allows frame alignment to be predefined and maintained during a final joining process. Examples of other mechanical attachments are described in greater detail in connection with FIGS. 14-15 below.

Spokes may be constructed elaborately to support a multiplicity of coaxial, axially separated, rings. One type of spoke utilizing the twisting tab concept is shown in FIG. 7(a). The spokes depicted contain upward facing tabs 120 for mounting to a center unit. They have downwardly facing tabs for supporting rings. A tab such as tab 124 is located along a segment 125 of the spoke such that a large length 126 of segment 125 is disposed on either side of the tab 124. Another tab 128 is in close proximity to an end of segment 130, with a substantial length of segment 132 on one side of the tab 128 and with only a short length 134 on the other side, the short length being sufficient in order to provide an adequate platform for the ring.

A second type of spoke, depicted in FIG. 7(b), has supporting arms 138 extending from a main segment 140 and defining arm platforms 142 from which rings hang with their weight supported by the tabs. The spokes of FIG. 7(b) may include a pair of tabs 146 disposed upon one of the arms 138 for attachment to a center unit. The use of two tabs helps to provide extra strength when attached to a center unit (which has two corresponding slots). A spoke also may be provided with a hole 154 disposed at one end of the spoke. This hole may be used, for example, to join the spoke, by means of a fastener, to the hole of another spoke, such as hole 148 of the spoke 150 shown in FIG. 7(c).

Elaborate rings may be formed to construct a chandelier frame according to this invention, particularly if laser cutting is utilized. Shapes varying from an ordinary annulus having a variety of holes, slots and edge contours are possible. FIG. 8, for example, depicts a series of six slotted rings 160, 162, 164, 166, 168 and 170, concentric about a central axis. Each of these rings contains a series of small holes 174 for hanging ornaments from hooks, as well as certain large holes 176, as shown upon the outermost ring 160, through which ornaments such as crystal rods may be suspended. Each of the rings contains, evenly spaced about its perimeter, a series of projections 178 having slots 179 cut therethrough at precise locations. The slots 179 may accept the mechanically interengaging tabs described above. The precise alignment of the slots 179 and ornament mounting holes 174, 176 between two or more rings in

5,222,805

7

the assembled frame achieves symmetrical crystal placement to a degree never before achieved.

Each of these rings may be spaced axially relative to the other rings by attachment to spokes such as those shown in FIGS. 7(a) and 7(b). Certain rings 160, 162, 166 and 168 have slots disposed in radial alignment (dotted line 180) relative to each other while other rings 164 and 170 are radially aligned (dotted line 182) offset to the other radially aligned slots. This allows certain spokes to support some of the rings while other spokes carry other rings, thus preventing overloading of spokes and making possible very large groupings of axially spaced rings.

The rings may take various forms, and broadly may be defined as a plate having an opening. The particular configuration will be selected based upon both functional and aesthetic considerations. As exemplified by the inner projecting arms 184 and annular center 186 of the innermost ring 170, rings may include shapes that extend outside of the general radial boundaries defined by the ring. Similarly, a ring does not have to scribe a circular path, as shown by the irregular undulating outer surface contour 188 upon each ring. In fact, as depicted in FIG. 12, rings need not be circular at all. Rather, oblique and noncurved shapes 230 and 232 may be utilized as chandelier frame rings. The central axis 234 for such a shape also need not be the centroid of each ring (note that D1 is less than D2).

The elaborate spokes and rings of FIGS. 7(a), 7(b) and 8 may be combined to form an equally elaborate tab and slot type of chandelier shown generally in partial side view in FIG. 9. The upper spoke 190 having four supporting arms 192 defines an upper portion of the chandelier frame with coaxial rings that increase in diameter from top to bottom. The spoke 190 is mounted to the top plate 194 of a center piece 196 by means of a pair of tabs 198 that positively secure it. Ornaments are attached to the rings of this upper spoke 190 through holes 200 in, for example, the ring 202 using hooks 204 with one end attached to the ring and extending outward with an ornament 206 attached at the opposing end. The end 207 of the upper spoke 190 is secured to a lower spoke 208 with a bolt 210 passing through a pre-formed hole in both spokes. The lower spoke 208 also supports a set of coaxial rings 211 with diameters that decrease from top to bottom. These rings include holes 212 having hooks 214 placed therethrough for hanging ornaments 206.

The top plate 194 of center piece 196 of the fixture of FIG. 9 is supported upon a center rod 216 that may be hollow and carry electrical wiring for the chandelier. The top plate 194 of the center piece 196 may be cut in the same manner as other chandelier frame parts, particularly using combined laser and punch cutting. This top plate is secured to the center rod 216 through a hole 220 in the top plate 194.

The top plate 194 is shown separately in this FIG. 10 to detail a preferred method of securing spokes to a central mounting plate according to this invention. According to this method, a pair of tabs 198 on a spoke arm 221 are positioned through corresponding slots 222 in the top plate 194 and twist locked in place.

The top plate 194 described in FIG. 10 may form a wall of a centerpiece such as a light box. FIG. 11 details the center piece 196 with spokes removed, revealing the spoke slots 222 on the top plate 194 as previously described, and additionally, side wall slots 224 on the top plate 194. These side wall slots 224 are disposed in

8

closer proximity to the outer edge of the top plate 194 and are transverse in elongation to the spoke slots 222. Through the side wall slots 224 in this example are located twisting tabs 216 for securing light box side walls 226. A bottom plate (not shown) may be located at the bottom of the side walls 226 and secured by a second similar set of tabs and slots to form the light box. The side walls 226 of this center piece may contain a number of light sockets 230 upon their surface for illumination of the fixture. The light sockets are connected to wires that are fed into the interior of the box through openings in the center rod 216 (not shown) in the region of the center piece interior. The center rod 216 (shown in phantom) may also have, in proximity to a bottom plate, a stop 228 to support the center piece and, consequently, the fixture as it hangs upon the rod. This stop 228 may be either machined into the rod or joined to the rod using an external joining method such as welding or screws.

FIG. 13 illustrates another tab and slot arrangement according to the invention in which spoke 310 is attached to a ring 311. The spoke 310 has two upwardly facing tabs 312, 314 spaced along the length of the spoke 310, one being at the end of the spoke and the other proximate to the end. The proximately located inner tab 314 is a twist tab configured as described above in connection with FIG. 6. The end tab 312 is not a twist tab, but rather is formed of an upwardly extending segment 316 and an outwardly extending segment 318. The spoke tabs 312, 314 are interengaged with mating ring slots, an outer ring slot 320 radially aligned with an inner ring slot 322.

To attach the spoke and ring to one another, the outwardly extending segment 318 of the end tab 312 is inserted through the outer ring slot 320 with the length of the spoke oriented at an angle with respect to the ring. The spoke then is rotated toward the ring about an axis defined by the interengaging outer slot and end tab in a manner to cause the inner twist tab 314 to be introduced through the ring slot 322. The inner twist tab 314 then is twisted to lock the spoke to the ring.

As shown, the ring of embodiment of FIG. 13 rests on top of the spoke. This embodiment also is particularly useful when the inverted position is desired, that is when a ring is suspended from a spoke or when a spoke is suspended from, for example, a center washer. As stated previously, not all materials are suited to a twist tab joining technique as disclosed above. Furthermore, certain aesthetic requirements may necessitate the avoidance of twist tab covered surfaces. Therefore, an alternative system for locking rings and spokes of planar nonstressed material requiring absolutely no stressing or deformation of parts and, thus, suitable to any virtually material of sufficient rigidity is also possible according to another embodiment of the invention. In this embodiment, no twist tabs are required. This method is particularly effective where tabs may be visibly unsightly, such as in a chandelier having a largely exposed frame.

FIG. 14 depicts one such frame having a ring 240 positioned coaxially relative to a center plate or center ring 242 that carries a plurality of radially elongated through cut slots 244 disposed about its periphery. Ring slots 246 are formed upon inward facing projections of the ring 240 in radial alignment with each of the slots 244 in the center plate 242. These ring slots, of course, may be placed directly into an unprojected portion of the ring. The ring 240 is supported relative to the center plate 242 by spokes 248 extending between the two

parts. Each spoke 248 has a spoke slot 250 at its outer end. The spoke slots are sized such that they interengage with the ring slots in a snug fit when the spoke is moved radially outwardly with respect to the ring. At the inwardly facing end of each spoke is a tab 252, located along a bottom edge of the spoke. When the ring slots and spoke slots are interengaged, the tabs 252 align with and may be positioned within the slots 244 in the center plate 242. The tabs 252 are sized to snugly interengage the slots 244, but, unlike the twist tab embodiment previously described, the tabs do not exit through an opposing side of the slot, nor do they have an integral locking mechanism. Rather, each spoke 248 with its tab in a slot is held forcibly in place against the center plate 242 by a locking disk 254 that engages the upper thickness edge 256 of each spoke. This disk is brought into contact with the spokes using, for example, a bolt 260 and nuts 262 and 264 located through a hole 266 in the center plate. The locking disk 254 may be concave in shape to provide additional spring force at each upper thickness edge 256.

The concept of interengaging slots also may be applied to the locking of the spokes to the center plate. An example of this configuration is shown in FIG. 15(a) which depicts a spoke 270 and center plate 272 similar in configuration to those shown in FIG. 13, except that the inner end of the spoke 270 is formed with a lower projection 274 defining a slot 276 with a slot width 278 approximately equal to the thickness of the center plate. The projection 274 is sized to fit through the plate slots 284. Once passed into the slot, as shown in FIG. 15(b), the spoke is slid radially outwardly to firmly interengage the outer spoke slot 288 with the slot 290 of a ring 292 and to simultaneously interengage the slot of the projection 274 with the plate slot 284. In this interengaged position, a flat locking disk 294 is then positioned on the surface of the center plate 272 where it rests snugly against the inwardly facing side edges 296 of the spokes. The locking disk 294 may be secured as shown, in this example in FIG. 15(b), by a bolt assembly 300 through a hole in the center of the locking disk and center plate.

The planar nonstressed pieces utilized in this invention may be composed of a variety of materials including sheet metals like steel, brass and aluminum. In one preferred embodiment, the parts of the frame are composed of sheet steel having a sufficient thickness to prevent buckling and bending under the weight of the frame and ornaments. Steel generally has the advantage in that it does not wear easily reducing potential loosening of locked surfaces, and it remains twistably deformed in place if twisted tabs are employed. Stainless steel has the advantage of increased structural strength and is a noncorroding material requiring no finishing process. Steel having a hardness of Rockwell scale 90B has been used successfully according to the invention.

The chandelier frame may alternatively be constructed of high strength plastic or acrylic, either clear or with coloring, that has the advantages of certain decorative value, reducing the cost of the finished chandelier, and particularly enabling effective snap fit locking of parts. Plastics also allow effective adhesion of parts through chemical, heat or ultrasonic welding. Such bonding may be accomplished after the component parts have been substantially assembled and symmetrically aligned.

As described above, the nonstressed materials utilized to construct parts of a chandelier frame according to

this invention may be formed and cut very precisely using a laser cutter. A preferred type of laser cutter is a combination turret punch press/laser cutter. Such a machine is employed regularly in the sheet metal industry. The Stripper model F/C 1250-30-1500 made by Stripper Co. of Akron, N.Y. fitted with a Rofin Sinar 1200 watt CO<sub>2</sub> laser, for example, provides sufficient capabilities for large scale production of chandelier frame parts according to this invention. Cuts may be made entirely by laser, but repetitive shaped cuts may also be made by a punch. This unit includes a mechanical punch press for repetitive shape cuts, such as slots and blank tabs. The punch press develops up to 30 tons of punching force. The table of this unit may accommodate up to 5 foot by 10 foot sheet material pieces with up to 60×60" of travel under programmed computer numerical control. The punch includes turret tooling that accommodates up to 33, differently shaped punches that may be brought into ready position as necessary under programmed control. Since curved shapes may often be encountered, the unit should be equipped with stations that allow the punch to be rotated under computer numerical control. This allows slots and other shapes to be rotatably disposed around a circumference at will.

Actual programming of the unit is accomplished using an X-Y axis positioning software program that may be loaded onto virtually any standard micro computer.

The design of a chandelier may be accomplished entirely on a computer using a computer-aided design program with virtually no margin of error in the dimensions of parts. This computer design can then be converted to numerical X-Y coordinate data that is directly loaded into the laser cutter control program to produce the finished chandelier frame parts. Thus, a full, complex chandelier may be constructed as a one-off unique model with only the design costs as an additional expense. Such a chandelier would be impossible to build using traditional mass production techniques. The flat pattern cuts required lend themselves to an automated cutting methods with or without lasers. The structure of a chandelier frame according to this invention, similarly, lends itself to quick assembly even while pieces are in the process of cutting.

FIG. 16 depicts an example of a flow chart for assembly of a chandelier frame. The process is initialized with the input 350 of a sheet of nonstressed material to the cutting device. A ring, including slots and ornament holes, is cut to a predetermined size 352. This ring is then output 354 to an assembly area. The sheet then is input to a second cutter that cuts 356 and outputs 358 spokes of predetermined sizes to an assembly area. Since no welds or other adhesives are used that would slow the process, assembly of spokes to each output ring can occur at once by simply fitting the parts together and twisting the appropriate tabs in place using, for example, an ordinary pair of pliers. An additional advantage of the simple assembly made possible with these frames is that significantly less skill is required, thus, lowering labor costs.

The cutting and outputting process continues 360 with the ring and spoke size changes 362 until the system determines 364 that the final cutting operation has been performed 366. Note in FIG. 8 how each ring may fit completely within the next larger ring, thus, allowing all rings to be cut concentrically. The system may output 368 any remaining excess sheet material. As each component part is output to the assembly area, it is, in turn, assembled 370 by twisting tabs or other quick

5,222,805

11

assembly method to spokes or other output parts until a finished chandelier frame is formed 372. This finished frame may then have ornaments applied at a separate station. It is important to note that even if assembly requires the use of some adhesive or weld, this invention allows precise alignment of all parts prior to the welding or adhesive operation, thus significantly increasing the speed and accuracy of assembly. All joints can be assembled and then all welds can be applied in an "assembly line" manner rather than one piece carefully fitted at a time.

FIGS. 17 and 18 depict another chandelier according to the invention. In this embodiment, the rings are not adapted for carrying ornaments, but rather are disposed centrally of the array of scrolled spokes for precisely aligning and supporting the array of scrolled spokes.

Referring to FIG. 17, the chandelier 400 has a central stem 402 with an attachment ring 403 for supporting the chandelier from the ceiling. Attached to the stem 402 and spaced apart from one another are a pair of disk-shaped plates or rings 404 (obscured in FIG. 17 by covers 405). These rings or plates are similar to those described above in connection with FIGS. 10, 14 and 15. Attached to and extending radially from the rings 404 are an array of scrolled spokes 406. (Only two spokes are shown for the purpose of clarity.) Ornaments 408 are attached to the scrolled spokes via openings 410 in the scrolled spokes.

The scrolled spokes 406 are attached to the rings 404 via the tab and slot arrangement (FIG. 18) described above. The scrolled spokes 406 include arm portions 412 extending radially inwardly for attachment to the rings 404. The arms carry a pair of integrally formed tabs 414 which project through slots 416 in the ring 404. The tabs 414 are twisted to provide positive locking 35 interengagement between the rings 404 and scrolled spokes 406.

It should be understood that the preceding is merely a detailed description of a preferred embodiment. It should be apparent to those skilled in the art that various modifications and equivalents can be made without departing from the spirit or scope of the invention. The preceding description is meant to describe only a preferred embodiment and not to limit the scope of the invention.

What is claimed is:

1. A chandelier frame comprising, rings adapted for supporting ornaments, each ring having a flat surface, spokes attached to the rings for supporting the rings, each spoke having a flat surface and a thickness transverse to the flat surface, the flat surface defining a width that is substantially greater than the thickness, and wherein the flat surfaces of the coaxial rings define first parallel planes and the flat surfaces of the spokes define second planes substantially perpendicular to the first planes and wherein the spokes define along a length of the surface transverse to their flat surfaces and facing the rings at least three nonlinear segments, mechanical interengagement means associated with the rings and spokes for aligning the rings and spokes with respect to one another, and locking means mechanically and detachably locking the rings and spokes against disengagement from one another.
2. A chandelier frame as claimed in claim 1 wherein the mechanical interengagement means is preformed

12

and is located at discrete positions on the rings and spokes to precisely align the rings both axially and radially with respect to one another.

3. A chandelier frame as claimed in claim 2 wherein the locking means includes slots in radial projections on the rings.

4. A chandelier frame as claimed in claim 2 wherein the rings include openings for supporting a plurality of ornaments and wherein the rings are supported coaxially.

5. A chandelier frame as claimed in claim 2 wherein the mechanical interengagement means comprises interengaging tabs and slots associated with the rings and spokes.

6. A chandelier frame as claimed in claim 5 wherein the locking means comprises a portion of each tab twisted into an engagement with at least one surface adjacent its corresponding slot.

7. A chandelier frame as claimed in claim 5 wherein the tab has a head and a neck, and wherein the neck has a narrower diameter than the head.

8. A chandelier frame as claimed in claim 5 wherein the mechanical interengagement means comprises a pair of adjacent, radially-aligned tabs interengaging a pair of slots.

9. A chandelier frame as claimed in claim 5 wherein the tabs have tab slots that extend into the slots associated with the rings and spokes.

10. A chandelier frame as claimed in claim 5 wherein the slot is a through-cut slot.

11. A chandelier frame as claimed in any one of claims 1, 2, 3, 5, 6, 7, 8, 9 or 10 wherein each spoke has a main segment and a plurality of arm segments integral with and extending from the main segment and defining platforms for attachment to the rings.

12. A chandelier frame as claimed in any one of claims 1, 2, 3, 5, 6, 7, 8, 9 or 10 wherein the spokes and rings are substantially nonstressed.

13. A chandelier frame as claimed in any one of claims 1, 2, 3, 5, 6, 7, 8, 9 or 10 further comprising a light box located substantially centrally of the chandelier frame and attached to spokes by interengaging locking means for mechanically securing the box to the spokes.

14. A chandelier frame as claimed in any one of claims 1, 2, 3, 5, 6, 7, 8, 9 or 10 further comprising a ring centrally and axially disposed with respect to the spokes and mechanically and detachably secured to the spokes.

15. A chandelier frame comprising, a plurality of rings including openings for supporting ornaments, spokes attached to the rings for supporting the rings coaxially in parallel planes, wherein the overall radial and axial tolerance of the rings with respect to themselves and one another in the assembled frame is less than 3/64 of an inch.

16. A chandelier frame as claimed in claim 15 wherein the rings and spokes prior to their attachment to one another to form the chandelier frame are substantially nonstressed.

17. A chandelier frame as claimed in any one of claims 15 and 16 wherein at least one spoke defines ring attachment platforms spaced axially apart and oriented in parallel relationship.

18. A chandelier frame as claimed in claim 14 wherein all of the rings include mechanical attachment means for securing the rings to the spokes, the means radially aligned among the rings and positioned at predeter-

5,222,805

13

mined locations with respect to ornament attachment openings in the rings.

19. A chandelier frame as claimed in claim 17 wherein all of the rings include mechanical attachment means for securing the rings to the spokes, the means radially aligned among the rings and positioned at a predetermined location with respect to ornament attachment openings in the rings.

20. A method for constructing the parts for a chandelier frame comprising,  
cutting rings for supporting ornaments from flat sheet material, and

cutting spokes for supporting the rings from flat sheet material, characterized in that the rings and the spokes are cut in a manner such that they include 15 mechanical interengagement means for aligning the rings to the spokes and also such that they include locking means for mechanically and detachably locking the rings and spokes against disengagement from one another.

21. A method as claimed in claim 20 further characterized by forming a slot in one of the rings and spokes and cutting a mating tab in the other of the rings and spokes for properly positioning the rings and spokes with respect to one another in the assembled chandelier 25 frame, the frame tab being sized for insertion through the slot.

22. A method as claimed in claim 20 further characterized by laser cutting at least a portion of one of said slot or tab.

23. A method as claimed in claim 20 wherein the tab is cut in a manner such that it has a head and a neck, and

14

wherein the neck defines a narrower diameter relative to the head.

24. A method as claimed in claim 20 wherein the tab is cut in a manner such that it extends from a platform.

25. In a chandelier of the type including a plurality of rings attached to a plurality of spokes, the improvement comprising interengaging tabs and slots associated with the rings and spokes for mechanically securing the rings to the spokes, wherein the tabs extend through the slots from a platform and wherein each tab is twisted into positive locking engagement with surfaces adjacent its respective slot.

26. The improvement of claim 25 wherein each tab has a head and a neck, the neck defining a narrower diameter relative to the head.

27. The improvement of claim 25 wherein an axis is defined centrally of each tab in the direction of that tab passing through its respective slot and wherein each tab is twisted by rotation of a portion of each tab about its 20 axis.

28. The improvement of claim 26 wherein the tabs have tab slots that extend into the slots associated with the rings and spokes, the tab slots defining the neck.

29. In a chandelier of the type including a plurality of rings attached to a plurality of spokes, the improvement comprising interengaging tabs and slots associated with the rings and spokes for mechanically securing the rings to the spokes, wherein a pair of adjacent tabs is associated with a pair of adjacent slots, and wherein at least 30 one of the tabs is a twisted tab.

\* \* \* \* \*

35

40

45

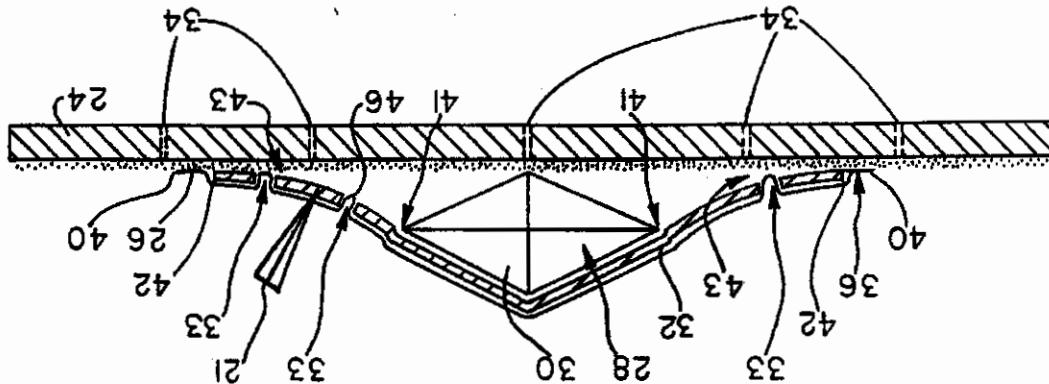
50

55

60

65

**EXHIBIT E**

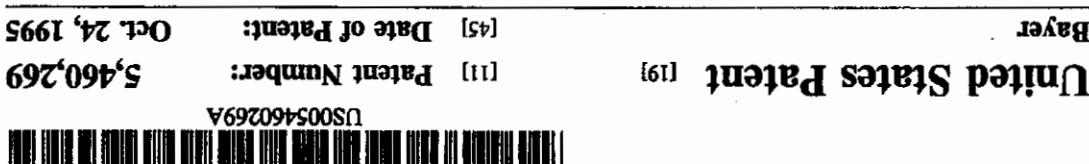


## 12 Claims, 5 Drawing Sheets

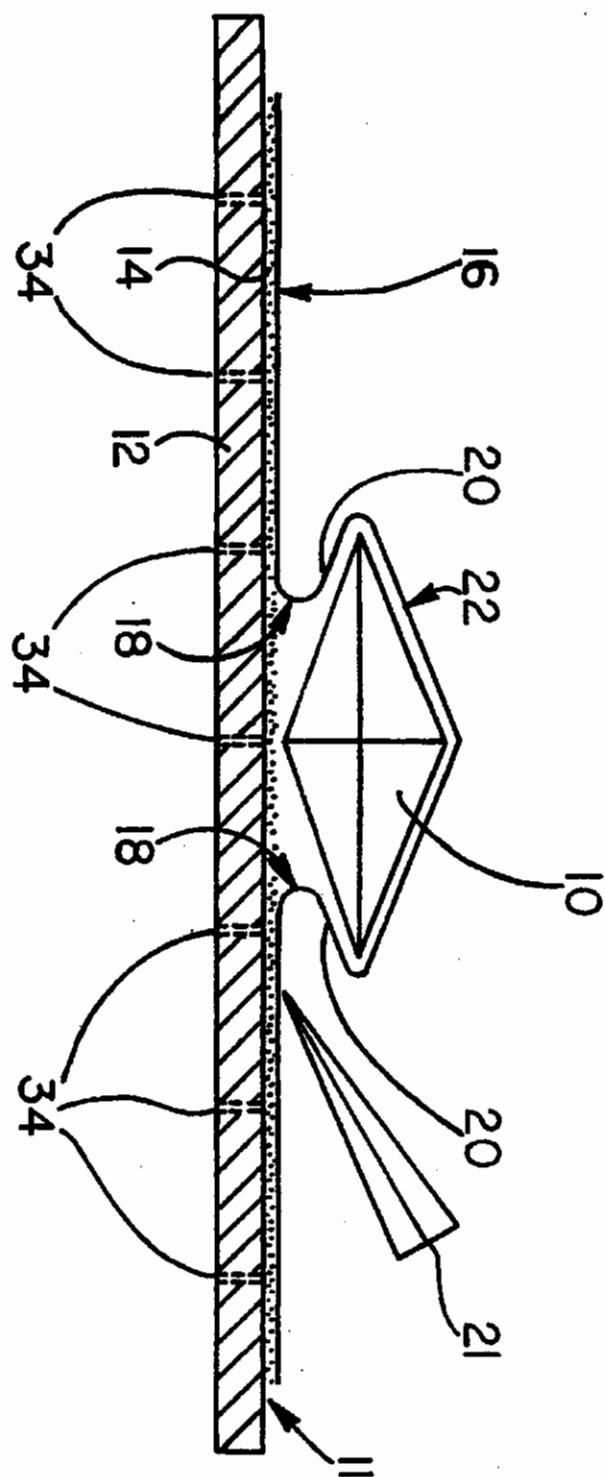
A skin packaging according to this invention is formed by providing a backingsheet and positioning an article on the backingsheet at an appropriate point. An intermediate sheet having a backingsheet and positioned on the article. The intermediate sheet is then covered with a sheet of porous substantially inelastic material is then overlaid on the article. The intermediate sheet is then covered with a sheet of porous substantially inelastic material is then overlaid on the intermediate sheet. This intermediate sheet is then covered with a sheet of porous substantially inelastic material is then overlaid on the intermediate sheet. The intermediate sheet is then covered with a sheet of porous substantially inelastic material is then overlaid on the intermediate sheet. Finally after the intermediate sheet is overlaid on the intermediate sheet so that the intermediate sheet prevents the skin sheet from encapsulating the article.

4,015,051 3/1977 Oferman et al. .... 428/523  
 3,895,983 7/1975 Lang et al. .... 428/119  
 3,809,217 5/1974 Hartman .... 206/484  
 3,756,399 9/1973 Cosier et al. .... 206/45,33  
 3,752,222 A 3/1972 Coblenz .... 156/177  
 3,534,521 10/1970 Rorer .... 229/73  
 3,484,828 3/1967 Covet, Jr. et al. .... 206/80  
 3,358,829 12/1969 Eggwoldt et al. .... 206/48  
 3,270,482 9/1966 Kral .... 33/30  
 3,253,705 5/1966 Stolet, Jr. .... 206/55,33  
 2,876,689 3/1959 Maginnis, Jr. .... 206/55,33  
 2,861,405 11/1958 Hanford .... 53/22 A

U.S. PATENT DOCUMENTS	
[56] References Cited	
Primary Examiner—George F. Lesmes	
Assistant Examiner—Blaine R. Comprehensive	
Attorney Agent, or Firm—WOL, Greenfield & Sacks	
[57] ABSTRACT	
A skin packaging according to this invention is formed by providing a backingsheet and positioning an article on the backingsheet at an appropriate point. An intermediate sheet having a backingsheet and positioned on the article. The intermediate sheet is then covered with a sheet of porous substantially inelastic material is then overlaid on the intermediate sheet. This intermediate sheet is then covered with a sheet of porous substantially inelastic material is then overlaid on the intermediate sheet. The intermediate sheet is then covered with a sheet of porous substantially inelastic material is then overlaid on the intermediate sheet. Finally after the intermediate sheet is overlaid on the intermediate sheet so that the intermediate sheet prevents the skin sheet from encapsulating the article.	
FOREIGN PATENT DOCUMENTS	
[51] Int. Cl. 65/00	
206/463,471,484,484/67,68,69,201,311,1,36,5	
206/463,471,484,484/1,489,6,1,497,	
[58] Field of Search 206/45,248; 428/67; 428/69; 428/201; 428/311,1	
[52] U.S. Cl. 206/497, 206/6,1; 206/484,1;	
2134427 1/1973 France	
2451018 6/1982 France	
3004519 8/1981 Germany	
4,039,851 8/1966 United Kingdom	
4,111,364 10/1973 Freedman	
4,375,833 7/1978 Watson	
4,101,353 7/1978 Poulos	
4,083,451 4/1978 Hart	
4,062,449 10/1977 Hirsch et al.	
4,055,672 10/1977 Hessell et al.	
4,040,515 8/1977 Hessell et al.	
[54] SKIN PACKAGING	
75] Inventor: George Bayer, Plattsburgh, N.Y.	
73] Assignee: Schonbek Worldwide Lighting Inc., Plattsburgh, N.Y.	
[51] Date of Patent: Oct. 24, 1995	
[11] Patent Number: 5,460,269	
United States Patent [19]	
Bayer	
US005460269A	



*Fig. 1*  
(PRIOR ART)



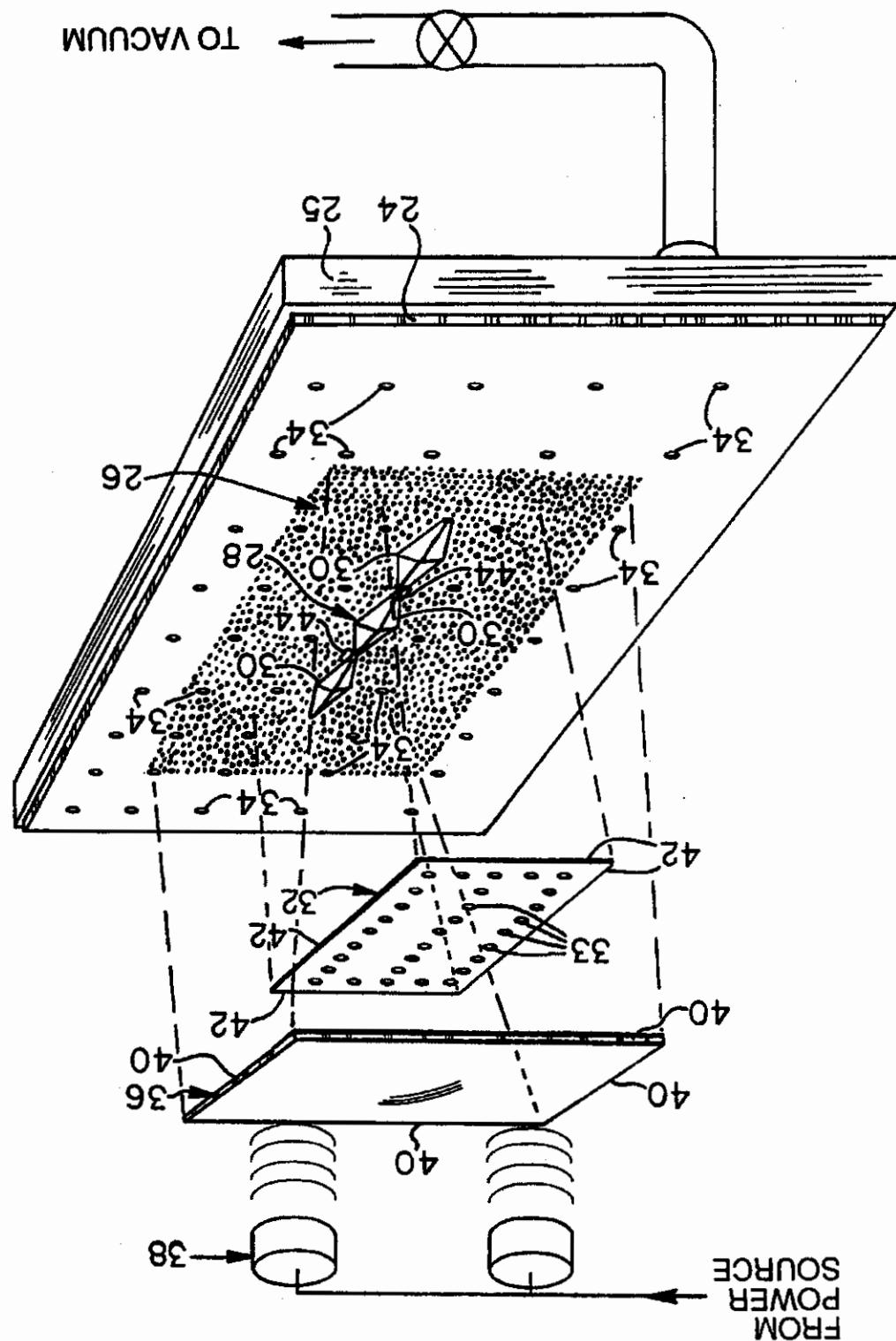
5,460,269

Oct. 24, 1995

Sheet 1 of 5

U.S. Patent

Fig. 2



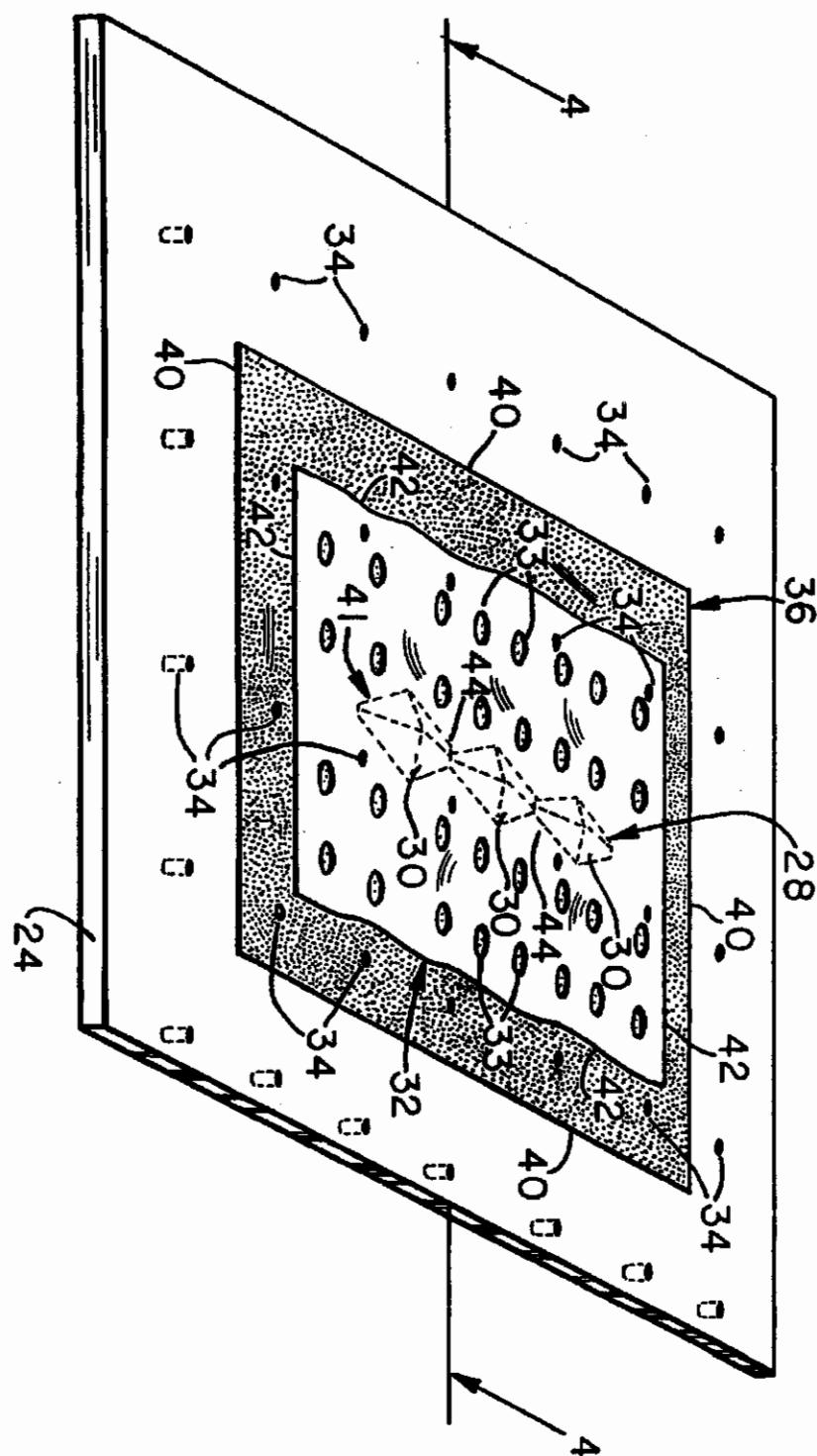
5,460,269

Sheet 2 of 5

Oct 24, 1995

U.S. Patent

Fig. 3



5,460,269

Sheet 3 of 5

Oct. 24, 1995

U.S. Patent

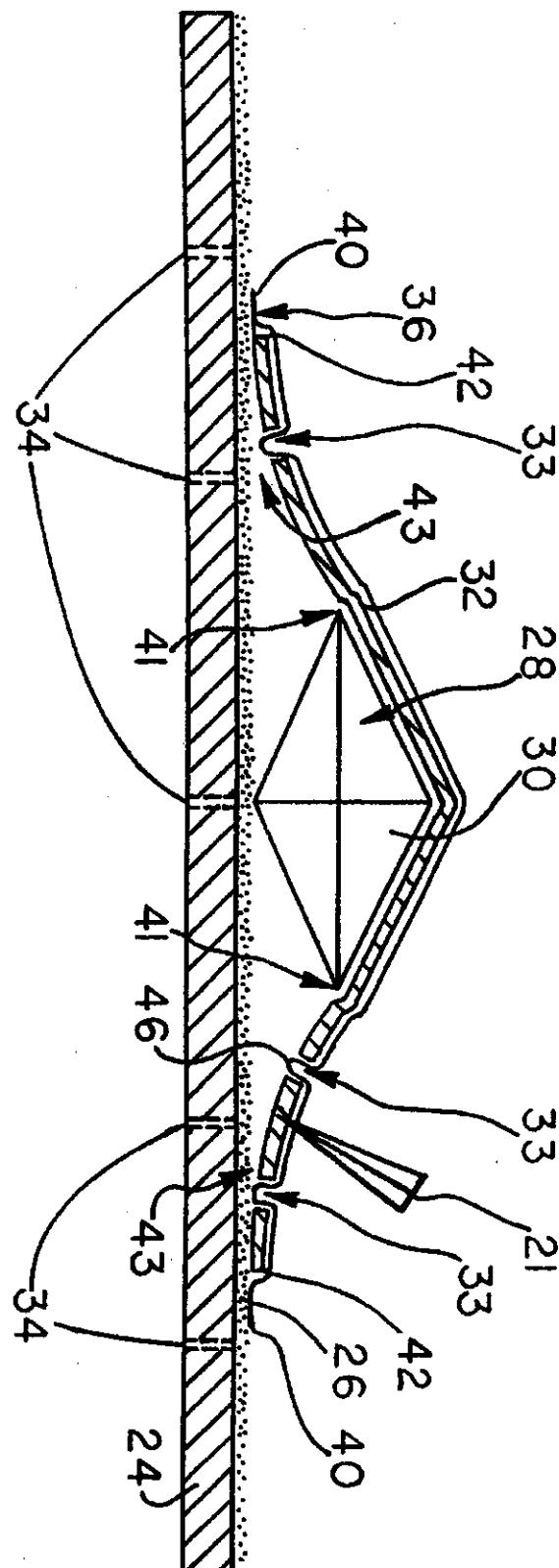


Fig. 4

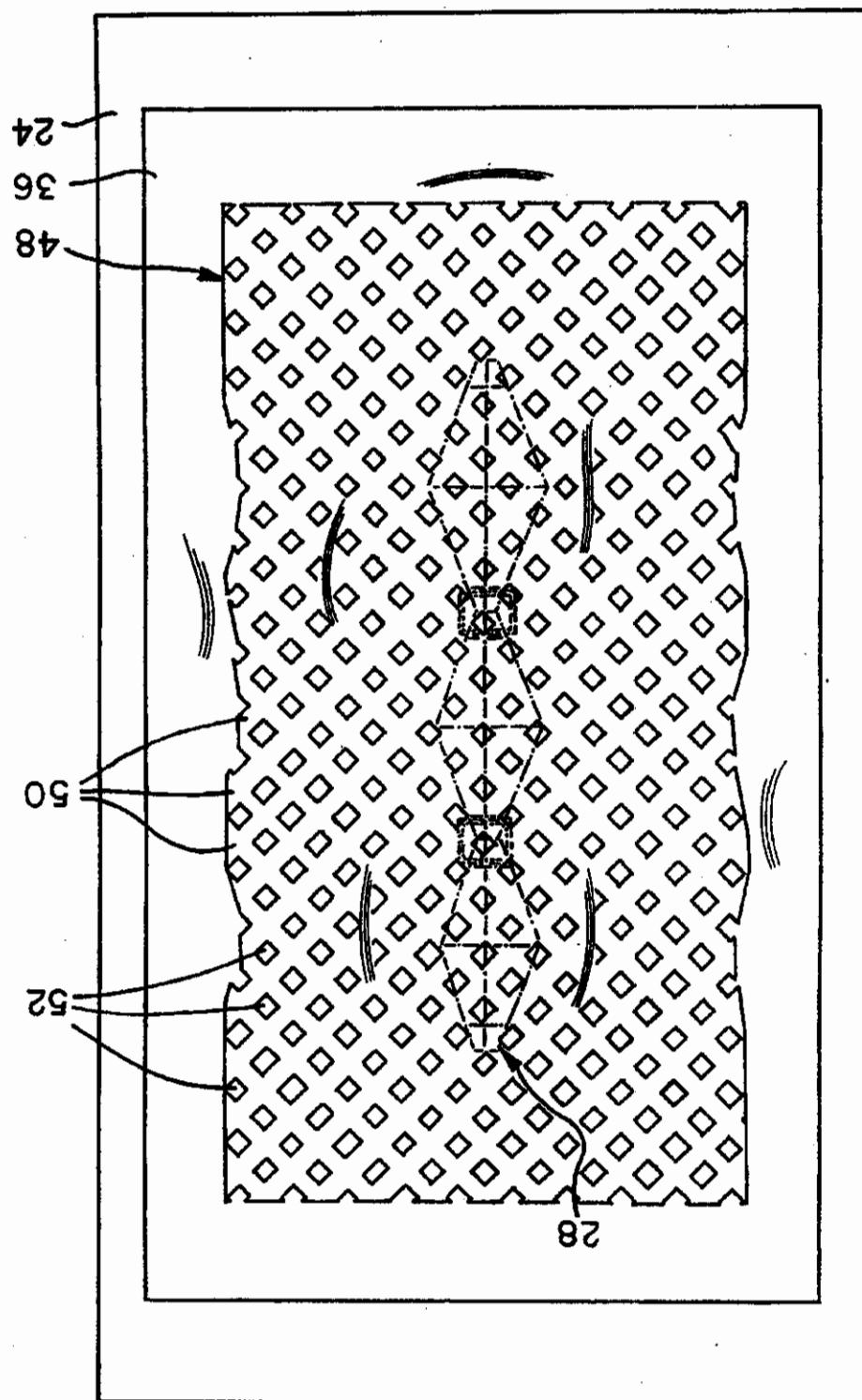
5,460,269

Oct. 24, 1995

Sheet 4 of 5

U.S. Patent

Fig. 5



A slim packaged article according to this invention is constructed by providing a substantially rigid backing sheet. This article is positioned on the backing sheet. The article is constructed by providing a substantially rigid backing sheet.

chain sheet from encapsulating the article.

## SUMMARY OF THE INVENTION

Accordingly, it is one object of this invention to provide skin packaging which is thin and stationary. It is another object of this invention to provide skin packaging which is flexible and that ensures that the skin does not adhere to the article. It is another object of this invention to provide skin packaging that generally prevents damage to the article. It is another object of this invention to provide skin packaging that facilitates removal of the article from the packaging. It is another object of this invention to provide skin packaging that facilitates removal of the article from the skin package. It is another object of this invention to provide skin packaging that facilitates removal of the article from the skin package.

A thinner dissedanage of cutane skin 22 often becomes detached through melting and/or surface incision, to the article. This is enough to cause the highly adhesive skin to placed into direct contact with the article, causing a strong adhesion. This is because the adhesive qualities of the skin can entrap small chains and crystals. Jewels can readily become detached, causing damage, and can entail substantial labor.

boundary 20, risking possible damage of the jewel surface through contact with the blade.

Typically in an article is removed from a skin a skin package by peeling around the article with a knife and peeling the backing away of skin off the article. Thus, the package would ideally be formed so that there is at least a small micromechanical bond between the article and the backing sheet, thus facilitating easy removal of the skin from the article. However, when encapsulation occurs by peeling the skin off the article, the knife blade (shown schematically as 21) comes easily access the unconnected boundary 20 of the skin package 11 since it is very close to the jewel 10. Therefore, to avoid contacting the jewel, the blade must be positioned (as shown) along the connected part of the skin package 11. The overlapping skin 22 is still attached to the backing sheet 12. Alternatively, the knife blade 21 may be brought utilized to remove the overlapping skin 22 from the backing sheet 12. Alternatively, the jewel 10 is cut at the unconnected boundary 20 of the skin package 11 since it is very close to the jewel 10.

## BACKGROUND OF THE INVENTION

This invention relates to skin packaging and a method for constructing skin packages.

**FIELD OF THE INVENTION**

SKIN PACKAGING

By providing perforations 33 to the backingsheet 24 at various intervals, such as 1/4 inch intervals, the extension of the skin sheet along the surface of the backingsheet 24 is increased, since the skin can contact the backingsheet 24 at points relatively remote to the backingsheet 24 through the perforations.

porous filter material without the use of larger perforations 33. The larger perforations 33 are provided to allow adhesive 26 from backing sheet 24 to be exposed through the inter-  
mediate layer at predetermined locations (e.g., the inter-  
lions). This is described further below.

#### DETAILED DESCRIPTION

The foregoing and other objects and advantages of the invention will become more clear with reference to the following detailed description of the preferred embodiment as illustrated by the drawings in which:

HG. I is a side cross-section of a skin packaged crystal 25

HG. II is a perspective view of a skin packaging process according to this invention;

HG. II is a perspective view of a skin package 20

HG. III is a side cross-section of the process of HG. II;

HG. IV is a side cross-section of the skin package 15

HG. V is a plan view of a skin package formed according to an alternative embodiment of this invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS





**EXHIBIT F**



US005873652A

**United States Patent**

[19]

Bayer et al.

[11] Patent Number: **5,873,652**  
 [45] Date of Patent: **Feb. 23, 1999**

[54] **CHANDELIER ASSEMBLY AND CHANDELIER COMPONENTS FOR GLASS ARM CONFIGURATIONS**

[75] Inventors: **Georg Bayer; Andrew M. Schuyler**, both of Plattsburgh, N.Y.

[73] Assignee: **Schonbek Worldwide Lighting, Inc.**, Plattsburgh, N.Y.

[21] Appl. No.: **678,193**

[22] Filed: **Jul. 11, 1996**

[51] Int. Cl. <sup>6</sup> ..... F21S 1/06; F21S 1/04

[52] U.S. Cl. ..... 362/405; 362/404; 362/406;

362/806

[58] Field of Search ..... 362/405, 406, 362/806, 404

[56] **References Cited**

U.S. PATENT DOCUMENTS

922,490	5/1909	Levinson	.....	362/405
1,629,489	5/1927	Dvorak	.....	362/406
2,197,887	4/1940	Elting	.....	362/405
2,278,433	4/1942	Elting	.....	362/405
2,279,034	4/1942	Elting	.....	362/405
3,387,129	6/1968	Weber et al.	.....	362/405
3,621,113	11/1971	Westby	.....	362/406
3,622,779	11/1971	Laagin	.....	362/405
3,735,123	5/1973	Porter et al.	.....	362/405
3,735,329	5/1973	Funabashi et al.	.....	362/405
4,034,216	7/1977	Webster et al.	.....	362/405
4,079,244	3/1978	Bortoluzzi	.....	362/405

4,107,770 8/1978 Weber ..... 362/405

Primary Examiner—Sandra L. O'Shea

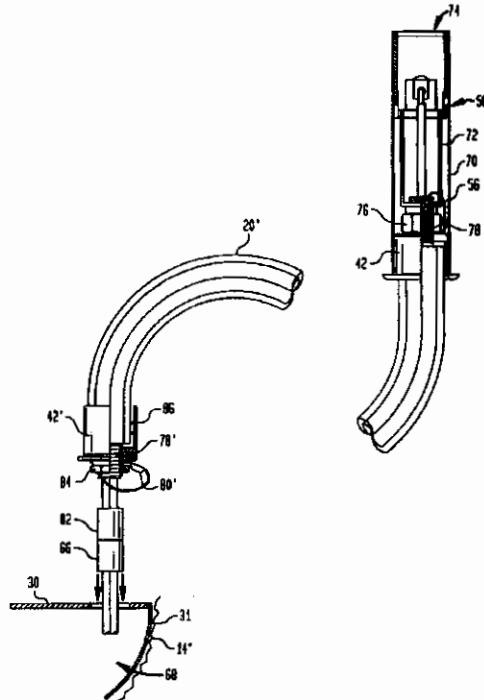
Assistant Examiner—Matthew J. Spark

Attorney, Agent, or Firm—Wolf, Greenfield & Sacks P.C.

[57] **ABSTRACT**

A preformed or preassembled bowl/plate assembly, including a bowl, a plate secured with respect to the bowl and defining with the bowl a chamber, the plate having a number of openings, each configured to receive a chandelier arm in a predetermined array. The chamber houses a plurality of wires with one pair of wires extending through each of the openings in the plate from the chamber. A plate/arm arrangement is provided to permit attachment of chandelier arms to the plate while only having access to the upwardly-facing surface of the plate. The chandelier arms may be both structurally attached to the chandelier framework and electrically attached to the central wiring of the chandelier after preassembly of the bowl/plate arrangement. The chandelier arms are preferably formed in an arcuate shape with a light socket attached to a first end and a sleeve attached to a second end and a pair of wires electrically attached to the light socket. The wires extend from the light socket through the chandelier arm to the second end and attached to a corresponding pair of wires extending from the openings in the plate to form a plurality of wire attachments. Peripherally, each pair of wires extending from the plate openings terminate in a plug positioned outside of the chamber and each pair of wires extending from each chandelier arm terminates in another plug which is configured to meet with the plug emanating from the plate opening.

17 Claims, 7 Drawing Sheets



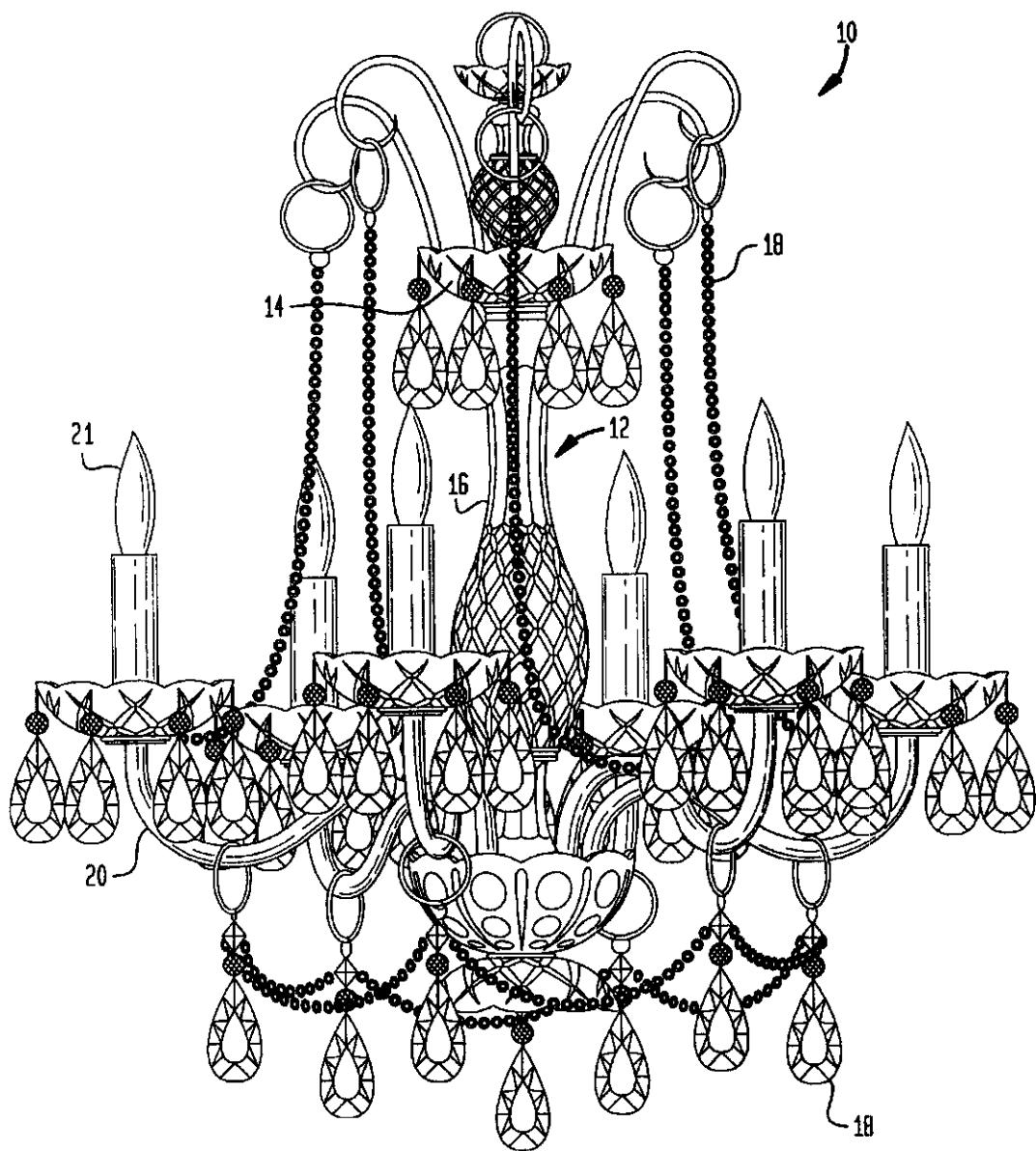
U.S. Patent

Feb. 23, 1999

Sheet 1 of 7

5,873,652

**FIG. 1**  
(PRIOR ART)



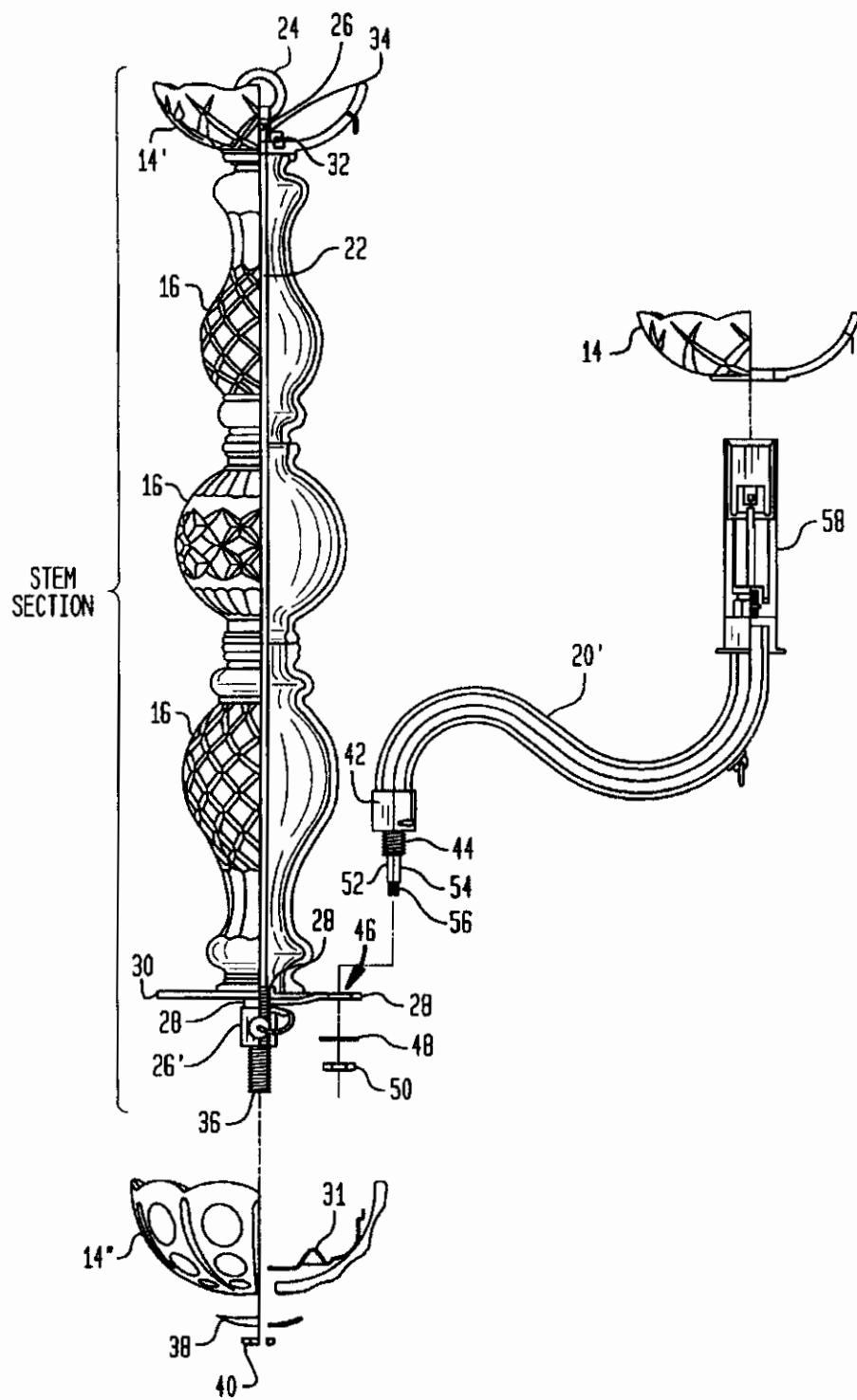
U.S. Patent

Feb. 23, 1999

Sheet 2 of 7

5,873,652

FIG. 2  
(PRIOR ART)



U.S. Patent

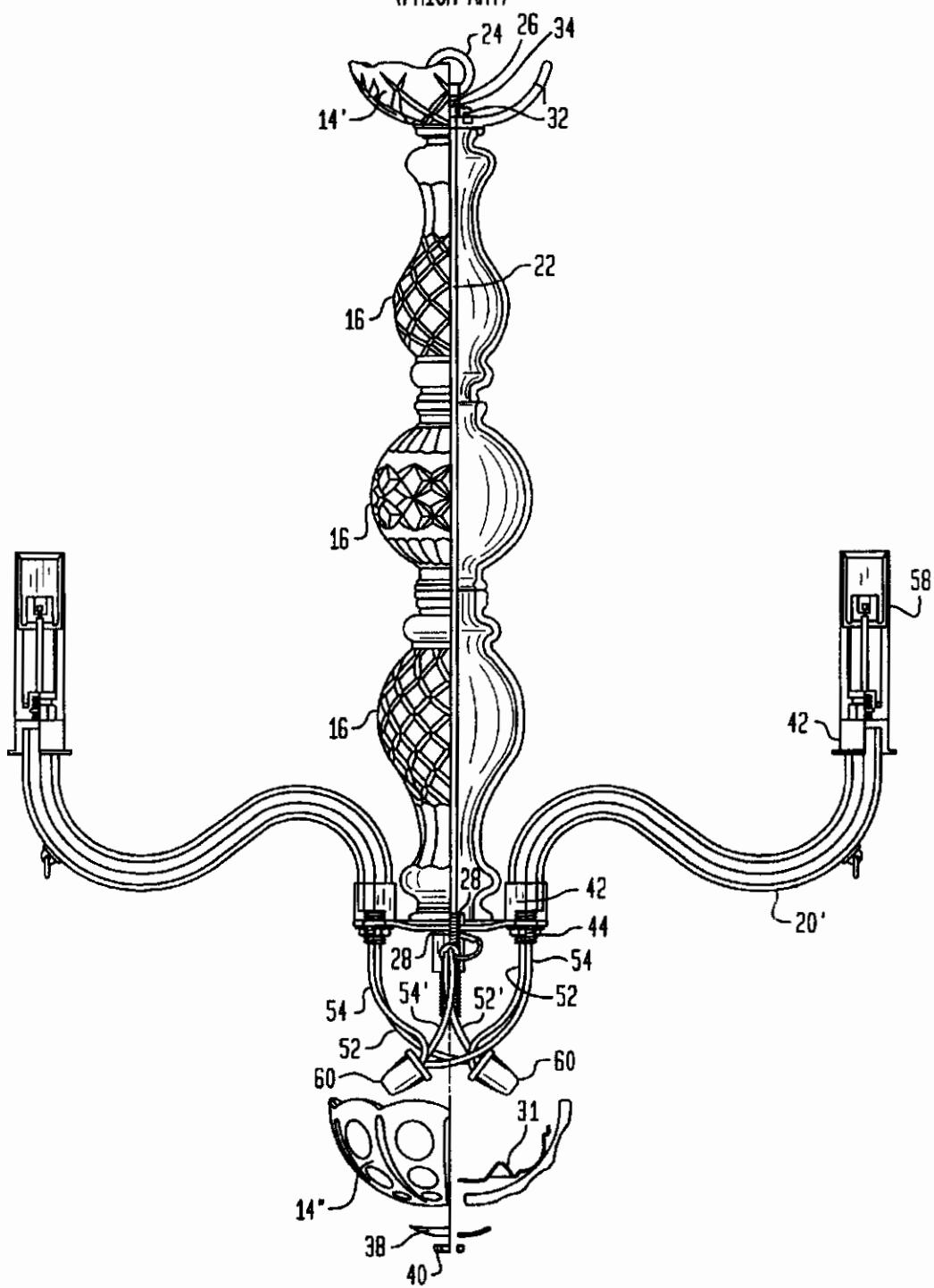
Feb. 23, 1999

Sheet 3 of 7

5,873,652

FIG. 3

(PRIOR ART)



U.S. Patent

Feb. 23, 1999

Sheet 4 of 7

5,873,652

FIG. 4

(PRIOR ART)

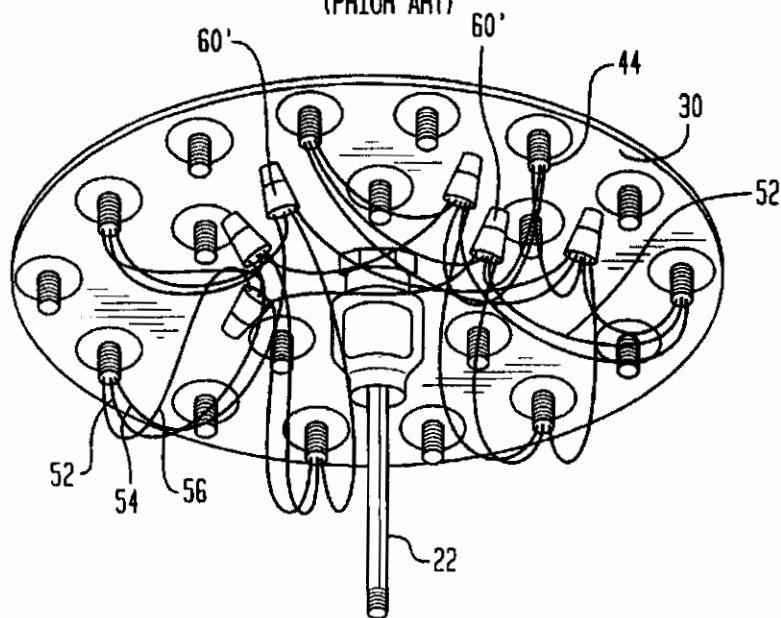
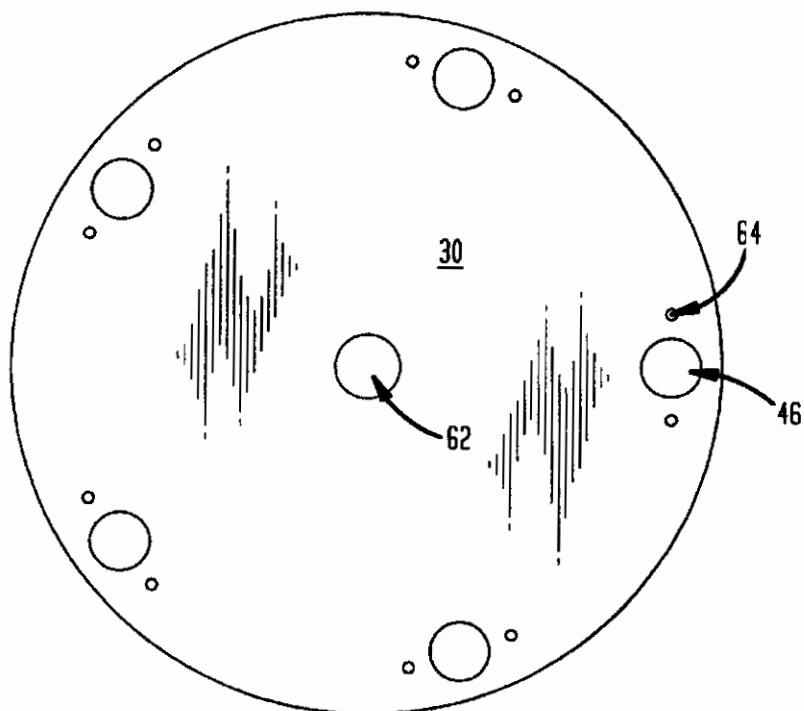


FIG. 5



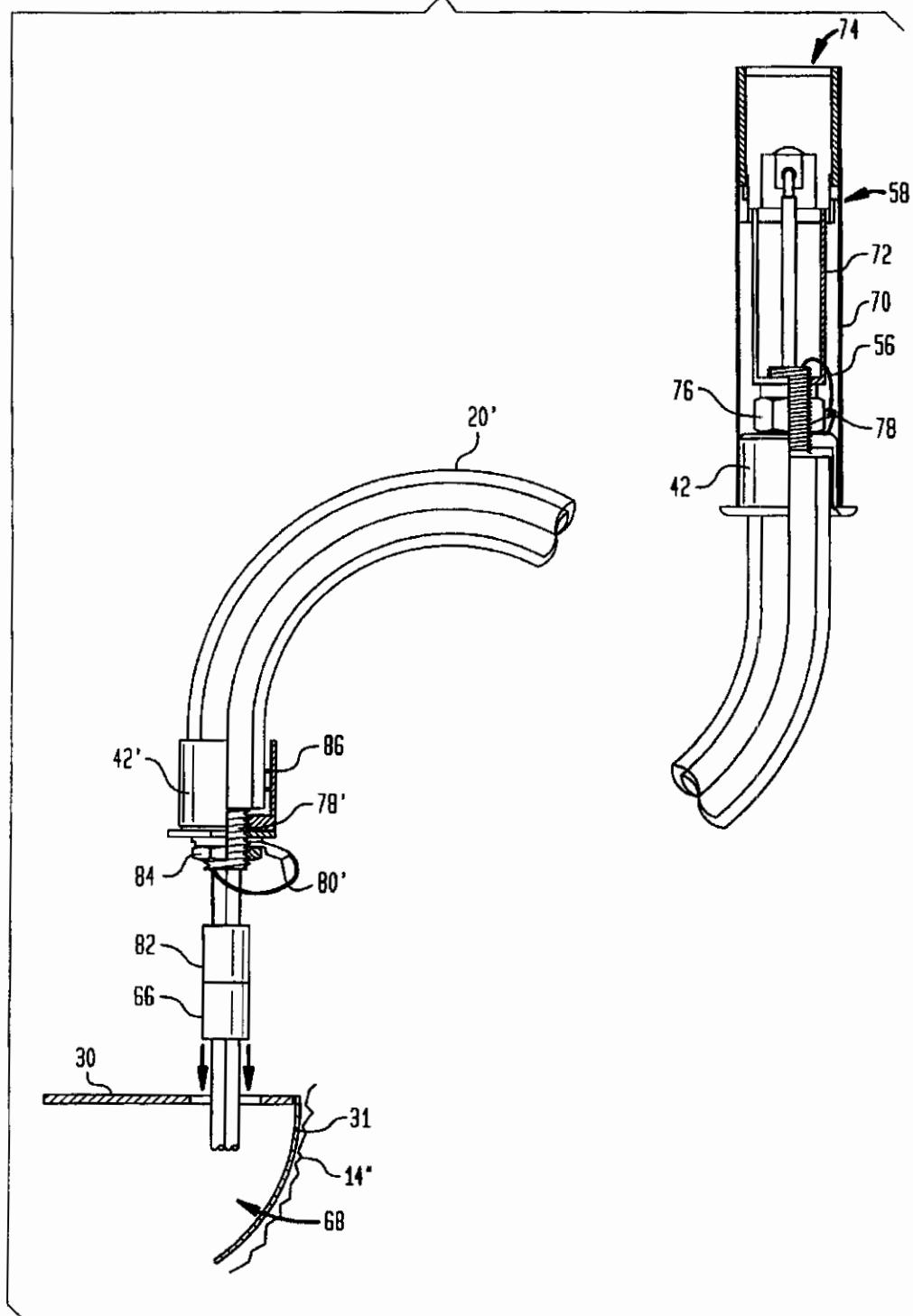
U.S. Patent

Feb. 23, 1999

Sheet 5 of 7

5,873,652

FIG. 6

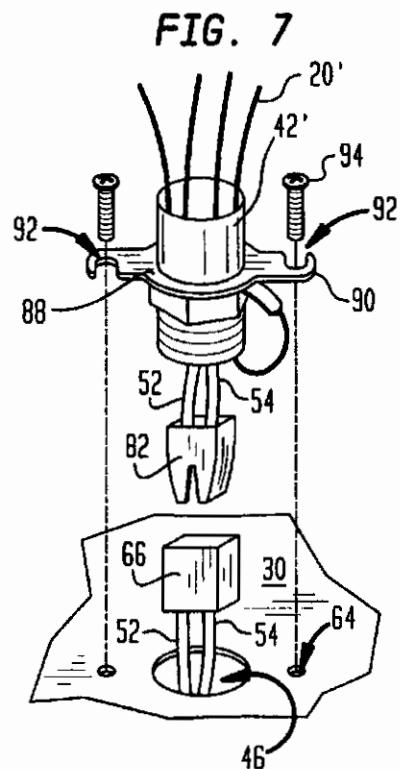


U.S. Patent

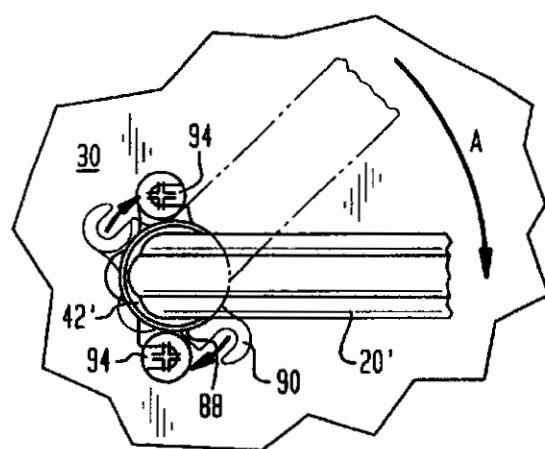
Feb. 23, 1999

Sheet 6 of 7

5,873,652



**FIG. 8**



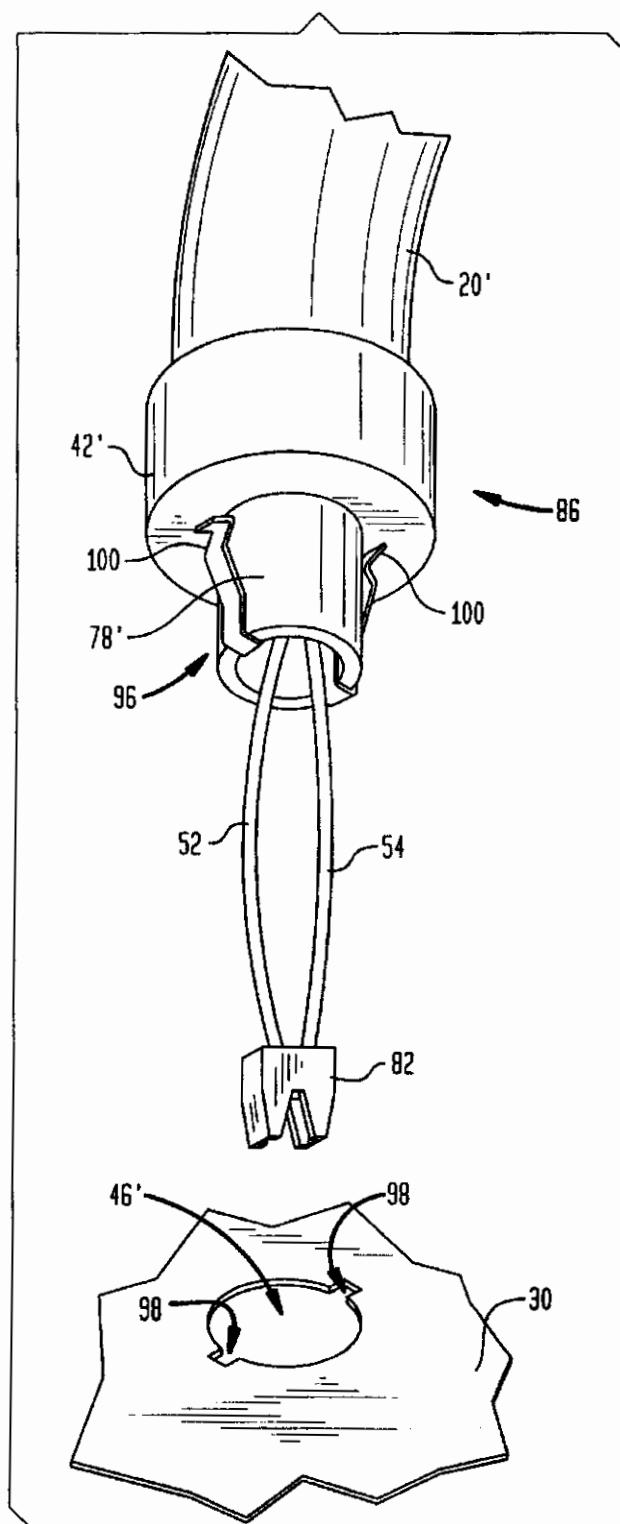
U.S. Patent

Feb. 23, 1999

Sheet 7 of 7

5,873,652

FIG. 9



5,873,652

1

**CHANDELIER ASSEMBLY AND CHANDELIER  
COMPONENTS FOR GLASS ARM  
CONFIGURATIONS**

**FIELD OF THE INVENTION**

This invention relates to chandelier assemblies, components thereof and methods for assembling chandeliers. The invention in particular relates to chandeliers having glass arms.

**BACKGROUND OF THE INVENTION**

Chandeliers come in a variety of forms and are made of a variety of materials. For example, certain chandeliers are made almost entirely of metal whereas other chandeliers are made almost entirely of glass. Chandeliers made primarily of glass present special problems with respect to shipping, particularly if the chandelier includes delicate, arcuate shaped glass arms. An example of such a chandelier is shown in FIG. 1.

The chandelier 10 includes a number of primary components. Its principal framework is a central stem 12 formed of a central metal support rod obscured from view by a series of dishes or bowls 14 and urns 16 stacked vertically upon one another. Crystals 18 are hung from these bowls to further adorn the chandelier. In addition, the chandelier is provided with a plurality of delicate, arcuate glass arms 20, some of which terminate in a light bulb 21. These delicate glass arms 20 are attached typically to a metal plate (not visible) secured to the central metal support rod and obscured from view by being seated within one of the bowls 14. The glass arms 20 thus provide a mechanism for lighting the chandelier and also provide points of attachment for crystals 18 and chains of crystals, which points of attachment are somewhat remote from the central stem, thereby allowing for draping of crystal chains and so forth to provide desirable appearances.

FIG. 2 is a representative partial cross-section of a chandelier of the type described in FIG. 1. The central support rod 22 extends vertically through the chandelier and terminates at its upper end in a ring 24 attached to support rod upper threads 26, to permit the chandelier to be hung from a ceiling. The bottom end of the support rod 22 has support rod lower threads 26'. These lower threads 26' are adapted to receive a pair of threaded nuts 28 which sandwich and hold in place a metal plate 30. The bowls 14', 14" and urns 16 are stacked upon the metal plate 30, with the support rod 22 passing centrally therethrough. The upper most bowl 14' is fixed from detachment from the support rod 22 by a washer 32 held in place by a threaded nut 34 secured to the ring 24 and screwed onto the upper threads 26 of the support rod 22. The bowl 14" is secured to a threaded stem 36 extending from the bottom end of the support rod 22 by a bottom bowl washer 38 and threaded nut 40. The plate 30 is seated within the bowl 14" when the bowl is attached to the threaded stem 36. The plate 30 and metal bowl 31 when assembled define a cavity containing the wiring. This cavity or chamber then is received within the bowl 14" which obscures from view the threaded stem and all of the wiring (not shown) that is connected to the lighted glass arms 20'.

The lighted glass arm 20' is connected to the plate 30 in a conventional manner. Each lighted glass arm 20' is seated in a cup or sleeve 42. Extending from the bottom of the sleeve 42 and threaded through the bottom of the sleeve 42 is a threaded stem 44. (To manufacture the arm, the threaded stem is threaded into the sleeve and the arm is then seated in the sleeve and cemented thereto.) The threaded stem 44 is

2

inserted through a radially disposed opening 46 in the plate 30, with the bottom of the sleeve 42 abutting the upwardly facing surface of the plate 30. A washer 48 and threaded nut 50 are passed over the positive wire 52, negative wire 54 and ground wire 56 extending from the threaded stem 44 and the threaded nut 50 is threaded onto the threaded stem 36, thereby securing the lighted glass arm 20' to the plate 30. The wires 52, 54, 56 then are connected to central wiring passing through the central stem to provide an electrical communication between the light socket 58 and an electrical energy source to which the chandelier is connected.

The wiring is shown in greater detail in FIG. 3. The wires 52, 54, 56 extend from the light socket through lighted glass arm 20', through the radial opening 46 and the plate 30 and out of the threaded stem 44 attached to the lighted glass arm 20'. A positive wire 52 from each of the lighted glass arms 20' (two arms shown) and a positive wire 52' from the wiring extending from the central stem 12 are electrically connected using a first wire nut 60. Likewise, a negative wire 54 from each of the lighted glass arms 20' and a negative wire 54' from the wiring of the central stem are connected to one another by a second wire nut 60. The ground wires (not shown) are secured in the same manner. While only two glass arms are shown in FIG. 3, two glass arms are not typical. Instead, chandeliers more frequently have 5, 10, 20 or even more lighted glass arms attached to a plate. Referring to FIG. 4, approximately 20 lighted glass arms (not shown) are attached to the plate 30. The wiring for 12 of these glass arms is shown. As can be seen, the wiring is complex. It is not permitted to attach more than a certain number of wires through a single wire nut 60'. Therefore the positive wires 52 from some lighted glass arms are connected to one wire nut 60' whereas the positive wires 52 from other glass arms are connected to a different wire nut 60', which in turn is connected sometimes via auxiliary wire nuts to the central wiring. Only after all of the wiring has been completed can the bottom bowl 14" and metal bowl 31 be attached to the plate 30 to form a bowl/plate assembly defining a chamber which contains and obscures from view the wiring.

It should be readily understood that the foregoing process for assembling a chandelier imposes a serious burden upon the distributor or ultimate customer. As discussed above, the glass arms 20 are too delicate to preassemble onto the chandelier 10, and, therefore, must be packed and shipped separately. Because access to both sides of the plate 30 are required to mount the glass arms 20 onto the metal plate 30, the bottom bowl 14" and metal bowl 31 cannot be assembled and attached to the metal plate 30 until after assembling the glass arms onto the plate, because doing so would prevent the necessary access to the bottom side of the plate for attachment of the glass arms 20 to the plate 30. Likewise, because the glass arms 20 are packed separately, the chandelier cannot be prewired for easy assembly.

Disassembly can be as substantial a problem as assembly, should part of the wiring fail or should any one of the arms be damaged. In order to repair a glass arm, or even test the wiring in a glass arm, the bottom bowl 14" and metal bowl 31 must be disassembled from the bowl/plate assembly to expose the wires so that the wires from the damaged or failing arm can be physically detached from the other wires and also so as to provide access to the nut abutting the bottom surface of the plate and holding the glass arm to the plate.

It thus would be desirable to have a chandelier assembly that is easier to put together and take apart, but that still permits shipping of arms, and in particular glass arms, separately packaged.

5,873,652

3

## SUMMARY OF THE INVENTION

The invention permits arms to be attached to (and detached from) a preassembled bowl/plate arrangement. The arms can be both structurally attached to the chandelier framework and electrically attached to the central wiring of the chandelier after preassembly of the bowl/plate arrangement. A bowl/plate assembly is preformed with wires accessible for electrical attachment to the arms. A plate/arm arrangement is provided to permit attachment of the arm to the plate while only having access to the upwardly facing surface of the plate. In this manner, the chandelier components may be shipped as a plate/bowl assembly and glass arms, with the customer having only to quickly and easily attach the arms to the plate/bowl assembly.

According to one aspect of the invention, a method for assembling a chandelier is provided. The invention involves first providing a bowl, a plate secured with respect to the bowl and defining with the bowl a chamber, the plate having a plurality of first openings, each first opening for receiving a chandelier arm in a predetermined array, and a plurality of wires, one pair of wires extending through each of the first openings from the chamber. This aspect of the invention also involves providing a plurality of chandelier arms preferably formed in an arcuate shape, each arm having a first end and a second end, a light socket attached to the first end, a sleeve attached to the second end and a pair of wires electrically attached to the light socket. The wires extend from the light socket through the arm to the second end. Once these elements have been provided, each pair of wires of each chandelier arm is attached to a corresponding pair of wires extending from the first openings of the plate, thereby forming a plurality of wire attachments. The wire attachments then are placed through the first openings, and then the chandelier arms are attached to the plate. In an important aspect of the invention, each pair of wires extending from the first openings terminates at a first plug positioned outside of the chamber, and each pair of wires extending from each arm terminates in a second plug mating with the first plug, wherein the attaching step is carried out by joining the first plug with the second plug. The foregoing method is particularly suited to glass chandelier arrangements involving glass ornamental bowls and lighted glass chandelier arms. In one important embodiment the glass arm has attached to it a flange, and the chandelier arm is secured to the plate by a plurality of screws engaging threaded openings in the plate, at least one screw for and engaging a corresponding flange on each chandelier arm to secure the chandelier arm to the plate.

According to another aspect of the invention, a chandelier component is provided. The chandelier component includes a bowl and a plate secured with respect to the bowl and defining with the bowl a chamber. The plate has a plurality of first openings, each first opening for receiving a chandelier arm in a predetermined array. The component also includes a plurality of wires, one pair of wires extending through each of the first openings from the chamber for electrical attachment to a light fixture on the chandelier arm. Preferably the bowl/plate assembly is attached to a support rod which together with the plate and bowl form a central chandelier stem. In one embodiment the bowl/plate assembly is received in an ornamental glass bowl and each pair of wires terminates in a plug disposed outside of the chamber, the plugs constructed and arranged to fit through the first openings. The plate can be of any suitable material, although preferably the plate is metal. The chandelier component can further comprise means for attaching the chandelier arms to

4

the plate. These means may be separate from the plate or may be part of the plate. Just as a preferred example, the plate can include a plurality of threaded openings, preferably wherein each first opening has one of said plurality of threaded openings positioned adjacent thereto.

According to still another aspect of the invention, another chandelier component for assembling into a chandelier is provided. This component is a glass arm, preferably formed in an arcuate shape, and having a first end and a second end. 10 A light socket is attached to the first end and a sleeve is attached to the second end. A pair of wires are electrically attached to the light socket, extend through the glass arm and terminate in a plug. The arm includes a flange at the second end, the flange defining an opening for attaching the arm to a chandelier framework. In a preferred embodiment, the component further comprises a ground wire attached to a first metal stem at a first end of the arm and attached to a second metal stem at the second end of the arm.

According to yet another aspect of the invention, a chandelier component for assembling into a chandelier is provided. This component is a glass arm, preferably formed in an arcuate shape, and having a first and a second end. A light socket is attached to the first end, and a sleeve is attached to the second end. A pair of wires are electrically attached to the light socket, extend through the glass arm and terminate in a plug. A ground wire is attached to a first metal stem at the first end of the glass arm and is attached to a second metal stem at the second end of the glass arm.

Still another aspect of the invention is a chandelier. The chandelier includes a bowl, a plate attached to the bowl and defining with the bowl a chamber, a plurality of glass arms attached to the plate and a plurality of wires. One pair of wires is present for each arm, each pair of wires extending from the chamber through openings in the plate and into a corresponding arm to a light socket at the end of the arm. Each pair of wires is interrupted by a pair of mating plugs disposed in the chamber, and the pairs of mating plugs are constructed and arranged to fit through the openings. Preferably the arms are detachably secured to the plate when the plate is attached to the bowl. Each arm can be attached to the plate by a flange secured at one end of each arm, the flange including a flange opening which preferably is aligned with a threaded opening in the plate. The bowl/plate assembly can be received in a glass ornamental bowl.

These and other aspects of the invention will be described in greater detail below with respect to the drawings.

## BRIEF DESCRIPTION OF THE DRAWING

50 FIG. 1 is a prior art glass chandelier assembly of the type to which the present invention can pertain.

FIG. 2 is a partial cross-section and partial exploded view of a prior art chandelier of the type shown in FIG. 1.

55 FIG. 3 is another partial cross-section and partial exploded view of a prior art chandelier of the type depicted in FIG. 1.

FIG. 4 is a bottom perspective view of a plate of a prior art chandelier of the type depicted in FIG. 1, with attached arms and wired electrically.

60 FIG. 5 is a top view of a plate useful in the bowl/plate assembly of the invention.

FIG. 6 is a partial cross-section of a lighted glass arm electrically attached to the bowl/plate assembly of the invention, but prior to attaching the arm to the plate.

65 FIG. 7 is an exploded perspective view of the region bounded by lines 7A in FIG. 6.

5,873,652

5

FIG. 8 is a top view of a lighted glass arm assembled onto a plate according to the invention, with a step in the assembly process shown in phantom.

FIG. 9 is a perspective view of a second embodiment for attaching the glass arm to the bowl/plate assembly according to the invention.

#### DETAILED DESCRIPTION OF THE INVENTION

The invention involves a plate/arm arrangement provided to permit attachment of an arm to the plate while having access only to the upwardly facing surface of the plate. It also involves a preassembled bowl/plate arrangement, whereby the arms can be structurally attached to the bowl/plate arrangement and electrically attached to central wiring contained within the bowl/plate arrangement, without separating the bowl from the plate.

The plate is shown in FIG. 5. The metal plate 30 has a central opening 62 adapted to receive a central support rod (not shown) for mounting the plate upon the central support rod. The plate 30 also has radially disposed unthreaded openings 46 disposed in the predetermined array, each opening 46 for receiving a glass chandelier arm. On either side of and adjacent to each opening 46 is a smaller threaded opening 64. These threaded openings 64 are for receiving screws 94 (FIG. 7).

In the chandelier component that is the bowl/plate assembly, each opening 46 has extending through it a pair of wires 52, 54 terminating in a female plug 66 (FIG. 6). The wires 52, 54 extend from the female plug 66 through the opening 46 and are attached to other wires (not shown) in the chamber 68 defined by the plate 30 and bowl 31. Thus, it can be understood that the bowl 31 and bowl 14" can be assembled onto the central stem and attached indirectly to the plate 30 prior to the attachment of the lighted glass arm 20, structurally or electrically, to the chandelier. Instead, the wiring beneath the plate 30 first is completed, with the plurality of female plugs 66, one each for attachment to each lighted arm, fed through each of the radially disposed openings 46 in the plate, and the bowls 31, 14" then are attached to the plate 30 for shipment as part of the preassembled central stem.

A lighted glass arm according to the invention also is shown in FIG. 6. At one end of the lighted glass arm is a light socket 58 conventionally constructed. It includes a cover 70 and an inner framework 72 terminating in a conventional light bulb socket 74. The framework 72 includes a threaded nut 76, which is secured to a threaded stem 78 extending from the upper end of the lighted glass arm 20. A first grounding tab is secured between the metal sleeve 42 at the upper end of the arm and the threaded nut 76 of the framework 72 of the light socket 58. The ground wire 56, together with the wires 52, 54, extends through the glass arm and out of the bottom end 86 of the lighted glass arm 20'. The wires 52, 54, terminate in a male plug 82. The ground wire terminates in a second grounding tab 80' which is secured between a threaded nut 84 and the sleeve 42' located at the bottom end 86 of the lighted glass arm 20'. The threaded nut 84 is threaded onto a threaded stem 78' at this end of the glass arm 20' to capture the second grounding tab 80' between the threaded nut 84 and the sleeve 42'.

Before attaching the glass arm to the plate, however, the male plug 82 is inserted into the female plug 66, and the mated plugs are passed through the plate openings 46 and into the chamber 68.

The bottom end 86 of the lighted glass arm 20' is shown in perspective view in FIG. 7, positioned above the bowl/

6

plate assembly and ready for electrical and structural interengagement with the bowl/plate assembly. Sandwiched between the threaded nut 84 and the sleeve 42 at the bottom end 86 of lighted glass arm 20' is a flange 88 extending radially outwardly from the sleeve. The flange has two opposing flange extensions 90, each flange extension constructed and arranged to define a flange opening 92 through which a screw 94 may pass. The flange openings 92 also are constructed and arranged so as to be positioned coaxially with the threaded openings 64 in the plate 30 when the lighted glass arm 20' is inserted into the radially disposed openings 46 of the plate 30. In this manner, the threaded portion of screws 94 can pass through the flange openings 92 and into the threaded openings 64 of the plate 30, whereby the heads of the screws engage the flange extensions 90 and secure the lighted glass arm 20' to the plate 30.

As will be seen from FIG. 8, the screws 94 may be preassembled onto the plate 30 by threading them only partially into threaded openings 64. The bottom end of the lighted glass arm 20' then may be inserted into the plate opening 46, with the glass arm rotated such that the flange extensions 90 do not contact the screws 94 and whereby the flange 88 comes to rest on the upwardly facing surface of the plate 30 (phantom position in FIG. 8). The lighted glass arm 20' then may be rotated (arrow A) until the threaded portion of the screws 94 come to rest within the flange openings 92. The screws then are tightened onto the plate to secure the glass arm onto the plate.

The foregoing arrangement not only provides a mechanism for quickly and simply securing the glass arm to the plate, but also provides a mechanism for orienting the glass arms radially with respect to the center axis of the chandelier. The threaded portions of the screws together with flange extensions 90 act as stops for aligning the radial orientation of the glass arms when the device is assembled.

FIG. 9 illustrates another mechanism for attaching the glass arm to the preassembled bowl/plate assembly (after the plate and bowl have been assembled as part of the chandelier central stem). In this embodiment, a spring clip 96 is attached to the threaded stem 78' extending from the sleeve 42' at the bottom end 86 of the lighted glass arm. As above, the male plug 82 attached to wires 52, 54, extending from the lighted glass arm first would be attached to the female plug extending from the bowl/plate assembly. The mated plugs then would be passed from outside of the chamber through the plate openings 46 and into the chamber 68, and the glass arm then would be inserted into the opening 46. In this embodiment, the opening 46' preferably is provided with slots 98 for mating with the spring-clip 96. The lighted glass arm 20' is oriented so that the slots 98 receives the arms 100 of the spring-clip 96, and the glass arm simply is forced into the opening 46' against the resistance of the spring-clip in a conventional manner. The spring-clip then secures the lighted glass arm 20' to the plate 30.

It is pointed out that in the preferred arrangement, the need for ground wires in the chamber is substantially avoided. The second ground tab 80' at the bottom end 86 of the lighted glass arm 20' is electrically continuous with the flange, which in turn is in electrical contact with the plate 30 when the glass arm 20' is secured to the plate 30. The plate 30, in turn, may be grounded to the ground wire of the central wiring passing through the central stem. In this manner, many wires within the wiring compartment may be avoided, and the wiring compartment may be more compact. Likewise, the manufacture and assembly is made more simple.

It will be understood that the foregoing embodiments represent only examples of the invention, and it is not

5,873,652

7

intended that the invention be limited thereby. For example, various methods and structures can be used to secure the glass arms 20 to the plate 30. For example, the flange 88 may include openings that are through-holes, whereby the screws 94 cannot be assembled onto the plate 30 in advance of positioning the glass arm appropriately upon the plate. In this instance, the glass arms 20 would be inserted into the openings 46 and the through holes of the flange then would be positioned over the threaded openings of the plate. Then the screws would be inserted through the through-hole of the flange and into the threaded opening of the plate to secure the arms to the plate. As another example, the screws 94 need not contact the arms directly. Instead, the screws could pass through a second plate which would sandwich the flange between the plate 30 and the second plate to secure the glass arms to the plate 30. Plate arrangements of this type are disclosed in U.S. Pat. No. 5, 255,173, and could be adapted to the glass arms of the present invention, particularly if the configuration of the sleeves of the glass arms of the present invention were altered. The disclosure of U.S. Pat. No. 5,255,173 is incorporated herein in its entirety by reference. As another example, the plate 30 need not have threaded holes for securing the glass arm to the plates. The plate 30 instead could include upwardly extending posts which could pass through, for example, a flange on the glass arm to properly position the glass arm on the plate. The post also could be threaded, and a nut could be threaded onto the post to capture the flange between the upwardly facing surface of the plate and the nut. Likewise, the materials of the chandelier may be any of those useful in the chandelier arts. For example, plate 30 preferably is metal, although it could be manufactured of plastic, stone, wood or even glass. The materials simply must be strong enough to perform their intended function. Preferred materials are as indicated above. Preferred plugs are "Mate'n Lock" connectors from Amp Incorporated of Harrisburg, Pa.

Numerous modifications and equivalents will be readily apparent to those of ordinary skill in the art.

We claim:

1. A method of assembling a chandelier comprising:  
providing a preassembled bowl assembly comprising a plate secured to a bowl and defining with said bowl a chamber, said plate having a plurality of openings, each opening adapted to receive a chandelier arm in a predetermined array, and a plurality of wires, one pair of wires extending through each of said openings from said chamber, each pair of wires terminating in a first electrical connector positioned outside of said chamber, providing a plurality of chandelier arms, each arm having a first end and a second end, a light socket attached to said first end, and a pair of wires electrically attached to said light socket, passing through said arm to extend from said second end and terminate in a second electrical connector, mating said second electrical connector terminating each pair of wires of each chandelier arm to a first electrical connector terminating a corresponding pair of wires extending from said first openings, thereby forming a plurality of wire attachments, placing each of said plurality of wire attachments through one of said plurality of first openings, and attaching said chandelier arms to said plate.
2. The method of claim 1, further comprising a step of: attaching a glass ornamental bowl to said preassembled bowl assembly so as to receive said bowl of said preassembled bowl assembly and wherein said chandelier arms comprise glass.

8

3. The method of claim 1 wherein each arm has attached to said second end a sleeve constructed and arranged to be detachably secured to one of said openings in said plate.
4. The method of claim 3 wherein said sleeve is secured to a flange and wherein said chandelier arms are secured to said plate by one or more screws engaging threaded openings in said plate, at least one screw engaging a corresponding flange on each chandelier arm to secure the chandelier arm to said plate.
5. The method of claim 4 wherein said plate is a metal plate.
6. A preassembled chandelier component comprising:  
a bowl,  
a plate attached to said bowl and defining with said bowl a chamber, said plate having a plurality of openings, each opening for receiving a chandelier arm in a predetermined array, and  
a plurality of pairs of wires each extending through a respective one of said openings from said chamber terminating at an electrical connector disposed outside of said chamber, said electrical connector constructed and arranged to fit through a corresponding one of said openings for attachment to a mating connector on said chandelier arm,
- 25 wherein said bowl, said plate and said plurality of wires form the preassembled chandelier component configured such that each said chandelier arm may be structurally attached to said plate and electrically attached to said electrical connector terminating said plurality of wires by accessing only an upwardly facing surface of said plate.
7. The preassembled chandelier component of claim 6 further comprising a glass ornamental bowl receiving said bowl.
- 35 8. The preassembled chandelier component of claims 6 or 7 wherein said plate is a metal plate and further comprising mechanical fastener attachment means for attaching said chandelier arms to said plate.
9. The preassembled chandelier component of claims 6 or 40 7 further comprising mechanical fastener attachment means on said plate for attaching said chandelier arms to said plate.
10. The preassembled chandelier component of claims 6 or 7 further comprising a plurality of threaded openings in said plate.
- 45 11. The preassembled chandelier component of claim 10 wherein each of said plurality of openings has one of said plurality of threaded openings positioned adjacent thereto.
12. A chandelier component for assembly into a chandelier comprising:  
50 a glass arm having a first end and a second end, a light socket having a conductive framework attached to said first end, a sleeve attached to said second end, a pair of wires electrically attached to said light socket, extending through said glass arm and terminating in an electrical connector plug proximate said second end, a first grounding tab conductively secured to said sleeve and said conductive framework of said light socket, a second grounding tab conductively coupled to said first ground tab and adapted to be conductively coupled to a metal plate when said chandelier component is connected into the chandelier, and  
55 a ground wire conductively coupled to said first and second grounding tabs.
13. The chandelier component of claim 12 further comprising:

5,873,652

9

a flange at said second end, said flange defining an opening for attaching said arm to a chandelier framework.

14. A chandelier comprising:

a plurality of chandelier arms wherein each of the arms 5 comprises;

- (a) a glass arm having a first end and a second end,
- (b) a light socket having a conductive framework attached to said first end,
- (c) a pair of wires electrically attached to said light 10 socket, extending through said glass arm and terminating in a first electrical connector plug proximate said second end;

a preassembled bowl assembly consisting of;

- (a) a bowl,
- (b) a plate with a plurality of openings, said plate secured to said bowl thereby defining a chamber,
- (c) a plurality of wires, one pair of wires for each 15 chandelier arm, wherein each pair of wires terminates at a second electrical connector plug within

10

said chamber each said plug adapted to fit through a corresponding one of said openings;

wherein said first electrical connector is mated with said second electrical connector, said mated connectors disposed in said chamber; and

wherein each said chandelier arm is secured to said plate through a respective one of said openings.

15. The chandelier of claim 14 wherein each of said chandelier arms is detachably secured to said plate.

16. The chandelier of claim 15 wherein each chandelier arm is attached to said plate by a flange secured at one end of each chandelier arm, said flange including a flange opening which is aligned with a threaded opening in said 10 plate.

17. The chandelier of claim 15 further comprising:  
a glass ornamental bowl attached to said preassembled bowl assembly.

\* \* \* \* \*

**EXHIBIT G**



This Certificate issued under the seal of the Copyright Office in accordance with title 17, United States Code, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

*Marybeth Peters*

Register of Copyrights, United States of America

**FORM VA**  
For a Work of the Visual Arts  
UNITED STATES GOVERNMENT PRINTING OFFICE  
VA 1-250-977



EFFECTIVE DATE OF REGISTRATION

*MAY 5 2004*

Month

Day

Year

**RATE CONTINUATION SHEET.**

**1 TITLE OF THIS WORK ▼**

1999 Catalog "The Well of Creativity Never Runs Dry" (271 Pages)

**NATURE OF THIS WORK ▼ See Instructions**

Photographs and Text

**PREVIOUS OR ALTERNATIVE TITLES ▼**

**PUBLICATION AS A CONTRIBUTION**  
collective work in which the contribution appeared.

If this work was published as a contribution to a periodical, serial, or collection, give information about the Title of Collective Work ▼

If published in a periodical or serial give:

Volume ▼

Number ▼

Issue Date ▼

On Page ▼

**2 NAME OF AUTHOR ▼**

3 Schonbek Worldwide Lighting, Inc.

Was this contribution to the work a "work made for hire"?

Yes

No

**AUTHOR'S NATIONALITY OR DOMICILE**

Name of Country

Citizen of ▶ USA

OR

Domiciled in ▶ USA

**DATES OF BIRTH AND DEATH**  
Year Born ▼ Year Died ▼

**WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK**  
Anonymous?  Yes  No  
Pseudonymous?  Yes  No

If the answer to either of these questions is "Yes," see detailed instructions.

**NOTE**

Under the law, the "author" of a "work made for hire" is generally the employer, not the employee (see Instructions). For any part of this work that was "made for hire" check "Yes" in the space provided, give the employer (or other person for whom the work was prepared) as "Author" of that part, and leave the space for dates of birth and death blank.

**NATURE OF AUTHORSHIP** Check appropriate box(es). See Instructions

- 3-Dimensional sculpture
- Map
- Technical drawing
- 2-Dimensional artwork
- Photograph
- Text
- Reproduction of work of art
- Jewelry design
- Architectural work
- Design on sheetlike material

**NAME OF AUTHOR ▼**

4 Glen Moody

Was this contribution to the work a "work made for hire"?

Yes

No

**AUTHOR'S NATIONALITY OR DOMICILE**

Name of Country

Citizen of ▶ USA

OR

Domiciled in ▶

**DATES OF BIRTH AND DEATH**  
Year Born ▼ Year Died ▼

1945

**WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK**  
Anonymous?  Yes  No  
Pseudonymous?  Yes  No

If the answer to either of these questions is "Yes," see detailed instructions.

**NATURE OF AUTHORSHIP** Check appropriate box(es). See Instructions

- 3-Dimensional sculpture
- Map
- Technical drawing
- 2-Dimensional artwork
- Photograph
- Text
- Reproduction of work of art
- Jewelry design
- Architectural work
- Design on sheetlike material

**3**

**YEAR IN WHICH CREATION OF THIS WORK WAS COMPLETED**

2 1998

◀ Year In all cases,

**DATE AND NATION OF FIRST PUBLICATION OF THIS PARTICULAR WORK**

Complete this information ONLY if this work has been published.

Month ▶ January

Day ▶ 7

Year ▶ 1999

◀ Nation

**4**

See Instructions  
before completing  
this space.

**COPYRIGHT CLAIMANT(S)** Name and address must be given even if the claimant is the same as the author given in space 2 ▼

Schonbek Worldwide Lighting, Inc.  
61 Industrial Blvd.  
Pittsburgh, NY 12801

**TRANSFER** If the claimant(s) named here in space 4 is (are) different from the author(s) named in space 2, give a brief statement of how the claimant(s) obtained ownership of the copyright.

Glenn Moody and Burch & Company executed Assignments to Schonbek transferring all copyright rights in and to their respective contributions.

**MORE ON BACK** ▶ Complete all applicable spaces (numbers 4-8) on the reverse side of this page.  
See detailed instructions.

◀ Sign the form at line 8.

APPLICATION RECEIVED  
MAY 10 2004

ONE DEPOSIT RECEIVED

TWO DEPOSITS RECEIVED  
MAY 05 2004

FUNDS RECEIVED

DO NOT WRITE HERE  
Page 1 of 4 pages

\*Amended by the U.S. Copyright Office per telephone conversation with Brett M. Hutton on 7/9/2004.

CHECKED BY *(initials)*

CORRESPONDENCE  
Yes

FOR  
COPYRIGHT  
OFFICE  
USE  
ONLY

DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.

PREVIOUS REGISTRATION Has registration for this work, or for an earlier version of this work, already been made in the Copyright Office?

Yes  No If your answer is "Yes," why is another registration being sought? (Check appropriate box) **V**

a.  This is the first published edition of a work previously registered in unpublished form.  
 b.  This is the first application submitted by this author as copyright claimant.  
 c.  This is a changed version of the work, as shown by space 6 on this application.

If your answer is "Yes," give: Previous Registration Number **V**

Year of Registration **V**

5

DERIVATIVE WORK OR COMPILATION Complete both space 6a and 6b for a derivative work; complete only 6b for a compilation.

a. Preexisting Material Identify any preexisting work or works that this work is based on or incorporates. **V**

See instructions before completing this space.

1993 catalog titled "The Gallery," 1993 catalog titled "The Catalog," and 1991 catalog titled "The New Age of Elegance"

6

b. Material Added to This Work Give a brief, general statement of the material that has been added to this work and in which copyright is claimed. **V**

Updated and additional photographs and text to show additional product lines. \*compilation

DEPOSIT ACCOUNT If the registration fee is to be charged to a Deposit Account established in the Copyright Office, give name and number of Account.

Name **V** Account Number **V**

7

CORRESPONDENCE Give name and address to which correspondence about this application should be sent. Name/Address/Apt/City/State/ZIP **V**

Brett M. Hutton, Esq.

Healin Rothenberg Farley & Meuti P.C.

5 Columbia Circle

Albany, NY 12203

Area Code and Telephone Number **V** (518) 452-5000

Be sure to give your daytime phone number

8

CERTIFICATION\* I, the undersigned, hereby certify that I am the  
check only one **V**

author

other copyright claimant

owner of exclusive right(s)

authorized agent of Schonbek Worldwide Lighting, Inc.

Name of author or other copyright claimant, or owner of exclusive right(s) **V**

of the work identified in this application and that the statements made by me in this application are correct to the best of my knowledge.

Typed or printed name and date **V** If this application gives a date of publication in space 3, do not sign and submit it before that date.

Brett M. Hutton

Date **V** April 22, 2004



Handwritten signature **V**

*Brett M. Hutton*

MAIL  
CERTIFI-  
CATE TO

Name **V**  
Brett M. Hutton, Esq.  
Healin Rothenberg Farley & Meuti P.C.

NumberStreet/lot **V**

5 Columbia Circle

City/State/ZIP **V**

Albany, NY 12203

1. Computer generated version.  
2. Electronic transmission **V**.

3. Application form  
4. Nonrefundable \$30 filing fee  
in check or money order  
payable to: Register of Copyrights  
5. Copyright Office  
U.S. Copyright Office  
Library of Congress  
Washington, D.C. 20559-6000

9

\*17 U.S.C. section 406(e): Any person who knowingly makes a false representation of a material fact in the application for copyright registration provided for by section 406, or in any written statement filed in connection with the application, shall be fined not more than \$2,500.

# CONTINUATION SHEET FOR APPLICATION FORMS

- This Continuation Sheet is used in conjunction with Forms CA, PA, SE, SR, TX, and VA only. Indicate which basic form you are continuing in the space in the upper right-hand corner.
- If at all possible, try to fit the information called for into the spaces provided on the basic form.
- If you do not have space enough for all the information you need to give on the basic form, use this continuation sheet and submit it with the basic form.
- If you submit this continuation sheet, clip (do not tape or staple) it to the basic form and fold the two together before submitting them.
- Part A of this sheet is intended to identify the basic application. Part B is a continuation of Space 2. Part C (on the reverse side of this sheet) is for the continuation of Spaces 1, 4, or 6.

DO NOT WRITE ABOVE THIS LINE. FOR COPYRIGHT USE ONLY

FORM VA /CON

VA 1-250-977



PA PAU SE SEQ SEU SR SRU TX TXU VA YAU

EFFECTIVE DATE OF REGISTRATION

*MM'S Jusef*

(Month) (Day) (Year)

CONTINUATION SHEET RECEIVED

**MAY 05 2014**

Page 3 of 4 pages

**IDENTIFICATION OF CONTINUATION SHEET:** This sheet is a continuation of the application for copyright registration on the basic form submitted for the following work:

- **TITLE:** (Give the title as given under the heading "Title of this Work" in Space 1 of the basic form.)

**A** 1999 Catalog "The Well of Creativity Never Runs Dry" (271 Pages)

**Identification of Application** **NAME(S) AND ADDRESS(ES) OF COPYRIGHT CLAIMANT(S):** (Give the name and address of at least one copyright claimant as given in Space 4 of the basic form.)

Schonbek Worldwide Lighting, 61 Industrial Blvd., Pittsburgh, NY 12801

**NAME OF AUTHOR:** V

**DATES OF BIRTH AND DEATH**

Year Born V Year Died V

**d** Burch & Company

**B** Was this contribution to the work a "work made for hire"?

Yes  
 No \*

**AUTHOR'S NATIONALITY OR DOMICILE**

Name of Country

OR Citizen of ► USA

Domiciled in ► USA

**WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK**

Anonymous?  Yes  No If the answer to either of these questions is "Yes," see detailed instructions.

Pseudonymous?  Yes  No

**NATURE OF AUTHORSHIP** Briefly describe nature of material created by this author in which copyright is claimed. ▼

Text and Compilation

**NAME OF AUTHOR:** V

**DATES OF BIRTH AND DEATH**

Year Born V Year Died V

**e**

Was this contribution to the work a "work made for hire"?

Yes  
 No

**AUTHOR'S NATIONALITY OR DOMICILE**

Name of Country

OR Citizen of ►   

Domiciled in ►   

**WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK**

Anonymous?  Yes  No If the answer to either of these questions is "Yes," see detailed instructions.

Pseudonymous?  Yes  No

**NATURE OF AUTHORSHIP** Briefly describe nature of material created by this author in which copyright is claimed. ▼

**NAME OF AUTHOR:** V

**DATES OF BIRTH AND DEATH**

Year Born V Year Died V

**f**

Was this contribution to the work a "work made for hire"?

Yes  
 No

**AUTHOR'S NATIONALITY OR DOMICILE**

Name of Country

OR Citizen of ►   

Domiciled in ►   

**WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK**

Anonymous?  Yes  No If the answer to either of these questions is "Yes," see detailed instructions.

Pseudonymous?  Yes  No

**NATURE OF AUTHORSHIP** Briefly describe nature of material created by this author in which copyright is claimed. ▼

Use the reverse side of this sheet if you need more space for continuation of Spaces 1, 4, or 6 of the basic form.

CONTINUATION OF (Check which):

Space 1

Space 4

Space 6

**C**

Continuation  
of other  
Spaces

MAIL  
TO

Name

Brett M. Hutton Esq. Heslin Rothenberg Farley &

Number Street Apt

Meziti P.C.

5 Columbia Circle

City State Zip

Albany NY 12203

Certificate  
will be  
mailed in  
window  
envelope

Computer or computer system.  
 Other (specify)

1. Application Status  
2. Correspondence/Case filing for  
an appeal or removal order  
pertaining to: Register of Copyrights

Library of Congress  
Washington, D.C. 20559-3000

**D**

Address for  
return of  
certificates

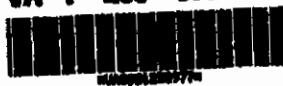


This Certificate issued under the seal of the Copyright Office in accordance with title 17, United States Code, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

*Marybeth Peters*

Register of Copyrights, United States of America

**FORM VA**  
For a Work of the Visual Arts  
UNITED STATES COPYRIGHT OFFICE  
VA 1-250-977



EFFECTIVE DATE OF REGISTRATION

*MAY 5 2004*

Month

Day

Year

**JURISDICTION SHEET.**

**1 TITLE OF THIS WORK ▼**

1999 Catalog "The Well of Creativity Never Runs Dry" (271 Pages)

**NATURE OF THIS WORK ▼ See instructions**

Photographs and Text

**PREVIOUS OR ALTERNATIVE TITLES ▼**

**PUBLICATION AS A CONTRIBUTION**  
collective work in which the contribution appeared.

If this work was published as a contribution to a periodical, serial, or collection, give information about the Title of Collective Work ▼

If published in a periodical or serial give:

Volume ▼

Number ▼

Issue Date ▼

On Page ▼

**2 NAME OF AUTHOR ▼**

a Schonbek Worldwide Lighting, Inc.

Was this contribution to the work a "work made for hire"?

Yes

No

**AUTHOR'S NATIONALITY OR DOMICILE**

Name of Country

OR

Domiciled in

>

USA

**DATES OF BIRTH AND DEATH**  
Year Born ▼ Year Died ▼

\*Amended by the C.O. Authority per telephone conversation with Brett M. Hutton on 7/9/2004.

CHECKED BY *[Signature]*

CORRESPONDENCE  
 Yes

FOR  
COPYRIGHT  
OFFICE  
USE  
ONLY

**DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.**

**PREVIOUS REGISTRATION** Has registration for this work, or for an earlier version of this work, already been made in the Copyright Office?

Yes  No If your answer is "Yes," why is another registration being sought? (Check appropriate box) **V**

- This is the first published edition of a work previously registered in unpublished form.
- This is the first application submitted by this author as copyright claimant.
- This is a changed version of the work, as shown in space 6 on this application.

If your answer is "Yes," give: Previous Registration Number **V**

Year of Registration **V**

5

**DERIVATIVE WORK OR COMPILED** Complete both space 6a and 6b for a derivative work; complete only 6b for a compilation.

a. **Preexisting Material** Identify any preexisting work or works that this work is based on or incorporates. **V**

1993 catalog titled "The Gallery," 1993 catalog titled "The Catalog," and 1991 catalog titled "The New Age of Elegance"

See instructions  
before completing this  
space.

b. **Material Added to This Work** Give a brief, general statement of the material that has been added to this work and to which copyright is claimed. **V**

Updated and additional photographs and text to show additional product lines. \*compilation

6

**DEPOSIT ACCOUNT** If the registration fee is to be charged to a Deposit Account established in the Copyright Office, give name and number of Account. **V**

Name **V** Account Number **V**

7

**CORRESPONDENCE** Give name and address to which correspondence about this application should be sent. Name/Address/Apt/City/State/ZIP **V**

Brett M. Hutton, Esq.

Hecht Rothenberg Farley & Mesiti P.C.

5 Columbia Circle

Albany, NY 12203

Area Code and Telephone Number **V** (518) 452-5800

Be sure to  
give your  
daytime phone  
number

**CERTIFICATION** I, the undersigned, hereby certify that I am the

check only one **V**

author

other copyright claimant

owner of exclusive right(s)

authorized agent of Schonbek Worldwide Lighting, Inc.

Name of author or other copyright claimant, or owner of exclusive right(s) **V**

of the work identified in this application and that the statements made by me in this application are correct to the best of my knowledge.

Typed or printed name and date **V** If this application gives a date of publication in space 3, do not sign and submit it before that date.

Brett M. Hutton

Date **V** April 22, 2004

8



Handwritten signature (X) **V**

MAIL  
CERTIFI-  
CATE TO

Name **V**  
Brett M. Hutton, Esq.

Hecht Rothenberg Farley & Mesiti P.C.

Number/Street/Apt **V**

5 Columbia Circle

City/State/ZIP **V**

Albany, NY 12203

1. Application form  
2. Nonresident \$50 filing fee  
in check or money order  
payable to Register of Copyrights  
3. Application fee  
4. Copyright Office  
Library of Congress  
Washington, D.C. 20559-6000

\*17 U.S.C. section 506(e): Any person who knowingly makes a false representation of a material fact in the application for copyright registration provided for by section 401, or in any written statement filed in connection with the application, shall be fined not more than \$2,500.

9



CONTINUATION OF (Check which):

Space 1

Space 4

Space 6

**C**  
Continuation  
of other  
Spaces

MAIL  
TO

Name ▼  
Brett M. Hutton Esq. Heslin Rothenberg Farley &  
Mesiti P.C.  
Number/Street/Apt ▼  
5 Columbia Circle  
City/State/ZIP ▼  
Albany NY 12203

Certificates  
will be  
mailed in  
window  
envelope

▼ Certificate of necessary spaces.  
▼ Seal your certificate  
[REDACTED]  
1. Application Form  
2. Correspondence and filing fee  
in amount of Twenty Five  
payments to Attorney of Counsel  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**D**  
Address for  
return of  
certificate

Register of Copyrights  
Library of Congress  
Washington, D.C. 20500-0000

**EXHIBIT H**

## Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, United States Code, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

*Marybeth Peters*

Register of Copyrights, United States of America

**FORM VA**  
For a Work of the Visual Arts  
UNITED STATES COPYRIGHT OFFICE

VA 1-200-210

EFFECTIVE DATE OF REGISTRATION

APR 30 2004

DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.

<b>1</b>		<b>TITLE OF THIS WORK</b> <input type="checkbox"/> <b>NATURE OF THIS WORK</b> <small>See Instructions</small>
		2002 Catalog (334 Pages) <b>Photographs and Text</b>
<b>2</b>		<b>PREVIOUS OR ALTERNATIVE TITLES</b>
		<b>PUBLICATION AS A CONTRIBUTION</b> <small>If this work was published as a contribution to a periodical, serial, or collection, give information about the collective work in which the contribution appeared.</small>
		<small>If this work was published as a contribution to a periodical, serial, or collection, give information about the Title of Collective Work</small>
		<b>NAME OF AUTHOR</b>
<b>a</b> Schonbek Worldwide Lighting, Inc. <small>Was this contribution to the work a "work made for hire"?</small> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>AUTHOR'S NATIONALITY OR DOMICILE</b> <small>Name of Country</small> <small>OR</small> <small>Citizen of</small> <input checked="" type="checkbox"/> USA <small>Domiciled in</small> <input checked="" type="checkbox"/> USA
		<b>DATES OF BIRTH AND DEATH</b> <small>Year Born</small> <input type="checkbox"/> <small>Year Died</small> <input type="checkbox"/>
		<b>WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK</b> <small>Anonymous?</small> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>Pseudonymous?</small> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>NOTE</b>		<b>NATURE OF AUTHORSHIP</b> <small>Check appropriate box(es). See Instructions</small>
		<input type="checkbox"/> 3-Dimensional sculpture <input type="checkbox"/> Map <input type="checkbox"/> Technical drawing <input type="checkbox"/> 2-Dimensional artwork <input type="checkbox"/> Photograph <input type="checkbox"/> Text <input type="checkbox"/> Reproduction of work of art <input type="checkbox"/> Jewelry design <input type="checkbox"/> Architectural work <input type="checkbox"/> Design on sheetlike material
<b>b</b>		<b>NAME OF AUTHOR</b>
<b>b</b> Glenn Moody <small>Was this contribution to the work a "work made for hire"?</small> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>AUTHOR'S NATIONALITY OR DOMICILE</b> <small>Name of Country</small> <small>OR</small> <small>Citizen of</small> <input checked="" type="checkbox"/> USA <small>Domiciled in</small> <input checked="" type="checkbox"/>
		<b>DATES OF BIRTH AND DEATH</b> <small>Year Born</small> <input type="checkbox"/> <small>Year Died</small> <input type="checkbox"/>
		<b>WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK</b> <small>Anonymous?</small> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>Pseudonymous?</small> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>3</b>		<b>YEAR IN WHICH CREATION OF THIS WORK WAS COMPLETED</b> <small>This information must be given in all cases.</small>
<b>a</b> 2002		<b>DATE AND NATION OF FIRST PUBLICATION OF THIS PARTICULAR WORK</b> <small>Complete this information only if this work has been published.</small> <small>Month</small> <input checked="" type="checkbox"/> June <input type="checkbox"/> 2002 <small>Day</small> <input type="checkbox"/> 2002 <small>Year</small> <input type="checkbox"/> 2002 <small>USA</small>
<b>4</b>		<b>COPYRIGHT CLAIMANT(S)</b> <small>Name and address must be given even if the claimant is the same as the author given in space 2.</small>
		<b>Schonbek Worldwide Lighting, Inc.</b> <b>61 Industrial Blvd.</b> <b>Plattsburgh, NY 12901</b>
		<b>TRANSFER</b> <small>If the claimant(s) named here in space 4 is (are) different from the author(s) named in space 2, give a brief statement of how the claimant(s) obtained ownership of the copyright.</small>
		<b>Glenn Moody and Burch &amp; Company executed Assignments to Schonbek transferring all copyright rights in and to their respective contributions.</b>
<b>MORE ON BACK</b>		<small>► Complete all applicable spaces (numbers 5-8) on the reverse side of this page.</small> <small>► See detailed instructions.</small> <small>► Sign the form at line 8.</small>

DO NOT WRITE HERE  
Space 1 of 2

APPLICATION RECEIVED

APR 3 11 2004

ONE DEPOSIT RECEIVED

TWO DEPOSITS RECEIVED

APR 3 0 2004

FUNDS RECEIVED



# CONTINUATION SHEET FOR APPLICATION FORMS

- This Continuation Sheet is used in conjunction with Forms CA, PA, SE, SR, TX, and VA only. Indicate which basic form you are continuing in the space in the upper right-hand corner.
- If at all possible, try to fit the information called for into the spaces provided on the basic form.
- If you do not have space enough for all the information you need to give on the basic form, use this continuation sheet and submit it with the basic form.
- If you submit this continuation sheet, clip (do not tape or staple) it to the basic form and fold the two together before submitting them.
- Part A of this sheet is intended to identify the basic application. Part B is a continuation of Space 2. Part C (on the reverse side of this sheet) is for the continuation of Spaces 1, 4, or 6.

DO NOT WRITE ABOVE THIS LINE. FOR COPYRIGHT USE ONLY

FORM VA /CON  
UNITED STATES COPYRIGHT OFFICE  
VA 1-266-219

PA PAU SE SEG SEU GR BRU TX TXU VA VAU

EFFECTIVE DATE OF REGISTRATION

APR 30 2004

Month (Day) (Year)

CONTINUATION SHEET RECEIVED

APR 30 2004

Page 3 of 4 pages

**A** IDENTIFICATION OF CONTINUATION SHEET: This sheet is a continuation of the application for copyright registration on the basic form submitted for the following work:

- TITLE: (Give the title as given under the heading "Title of this Work" in Space 1 of the basic form.)  
2002 Catalog (334 Pages)
- NAME(S) AND ADDRESS(ES) OF COPYRIGHT CLAIMANT(S): (Give the name and address of at least one copyright claimant as given in Space 4 of the basic form.)
- Application: Schonbek Worldwide Lighting, Inc., 61 Industrial Blvd., Plattsburgh, NY 12901

<b>d</b> NAME OF AUTHOR ▼		DATES OF BIRTH AND DEATH		
Burch & Company		Year Born ▼	Year Died ▼	
<b>B</b> Was this contribution to the work a "work made for hire"?		AUTHOR'S NATIONALITY OR DOMICILE		
Continuation of Space 2		Name of Country	USA	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		OR	Citizen of ▶ USA	
			Domiciled in ▶ USA	
NATURE OF AUTHORSHIP Briefly describe nature of material created by this author in which copyright is claimed. ▼				
Text and Compilation		WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Anonymous?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If the answer to either of these questions is "Yes," see detailed instructions.
		Pseudonymous?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If the answer to either of these questions is "Yes," see detailed instructions.

<b>e</b> NAME OF AUTHOR ▼		DATES OF BIRTH AND DEATH		
Was this contribution to the work a "work made for hire"?		Year Born ▼	Year Died ▼	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		AUTHOR'S NATIONALITY OR DOMICILE		
		Name of Country	USA	
		OR	Citizen of ▶	
			Domiciled in ▶	
NATURE OF AUTHORSHIP Briefly describe nature of material created by this author in which copyright is claimed. ▼				
Text and Compilation		WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Anonymous?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If the answer to either of these questions is "Yes," see detailed instructions.
		Pseudonymous?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If the answer to either of these questions is "Yes," see detailed instructions.

<b>f</b> NAME OF AUTHOR ▼		DATES OF BIRTH AND DEATH		
Was this contribution to the work a "work made for hire"?		Year Born ▼	Year Died ▼	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		AUTHOR'S NATIONALITY OR DOMICILE		
		Name of Country	USA	
		OR	Citizen of ▶	
			Domiciled in ▶	
NATURE OF AUTHORSHIP Briefly describe nature of material created by this author in which copyright is claimed. ▼				
Text and Compilation		WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Anonymous?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If the answer to either of these questions is "Yes," see detailed instructions.
		Pseudonymous?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If the answer to either of these questions is "Yes," see detailed instructions.

<b>g</b> NAME OF AUTHOR ▼		DATES OF BIRTH AND DEATH		
Was this contribution to the work a "work made for hire"?		Year Born ▼	Year Died ▼	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		AUTHOR'S NATIONALITY OR DOMICILE		
		Name of Country	USA	
		OR	Citizen of ▶	
			Domiciled in ▶	
NATURE OF AUTHORSHIP Briefly describe nature of material created by this author in which copyright is claimed. ▼				
Text and Compilation		WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Anonymous?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If the answer to either of these questions is "Yes," see detailed instructions.
		Pseudonymous?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If the answer to either of these questions is "Yes," see detailed instructions.

Use the reverse side of this sheet if you need more space for continuation of Spaces 1, 4, or 6 of the basic form.

CONTINUATION OF (Check which):

Space 1

Space 4

Space 6

**C**

Continuation  
of other  
Spaces

MAIL  
TO

Name <input checked="" type="checkbox"/>	Brett M. Hutton Iteskin Rothenberg Farley & Mesiti
Number/Street/Appt	5 Columbia Circle
City/State/Zip <input checked="" type="checkbox"/>	Albany, NY 12203

Certificate  
will be  
mailed in  
window  
envelope

U.S. POSTAL SERVICE  
Customer Self-Service  
MAIL FORMS  
1-800-275-8777

U.S. POSTAL SERVICE  
Customer Self-Service  
MAIL FORMS  
1-800-275-8777

U.S. POSTAL SERVICE  
Customer Self-Service  
MAIL FORMS  
1-800-275-8777

**D**

Address for  
return of  
certificate

## Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, United States Code, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

**FORM VA**  
For a Work of the Visual Arts  
UNITED STATES COPYRIGHT OFFICE

VA 1-200-219

EFFECTIVE DATE OF REGISTRATION

APR 30 2004

Register of Copyrights, United States of America

DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.

<b>1</b>		<b>TITLE OF THIS WORK</b> <input type="text" value="2002 Catalog (334 Pages)"/>	<b>NATURE OF THIS WORK</b> <input type="text" value="Photographs and Text"/>
<b>PREVIOUS OR ALTERNATIVE TITLES</b> <input type="text" value=""/>			
<b>2</b>		<b>PUBLICATION AS A CONTRIBUTION</b> <small>collective work in which the contribution appeared.</small>	
		<small>If this work was published as a contribution to a periodical, serial, or collection, give information about the Title of Collective Work</small>	
<small>If published in a periodical or serial give:</small> <input type="text" value="Volume"/> <input type="text" value="Number"/> <input type="text" value="Issue Date"/> <input type="text" value="On Page"/>			
<b>NAME OF AUTHOR</b> <input type="text" value="a Schonbek Worldwide Lighting, Inc."/>		<b>DATES OF BIRTH AND DEATH</b> Year Born <input type="text" value=""/> Year Died <input type="text" value=""/>	
<small>Was this contribution to the work a "work made for hire"?</small> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>AUTHOR'S NATIONALITY OR DOMICILE</b> <small>Name of Country</small> <small>OR</small> <input type="checkbox"/> Citizen of <input type="text" value="USA"/> <input type="checkbox"/> Domiciled in <input type="text" value="USA"/>	
		<b>WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK</b> <small>Anonymous?    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No</small> <small>Pseudonymous?    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No</small>	
<b>NOTE</b> <small>Under the law, the "author" of a "work made for hire" is generally the employer, not the employee (see instructions). For any part of this work that was "made for hire" check "Yes" in the space provided, give the employer (or other person for whom the work was prepared) as "Author" of that part, and leave the space for dates of birth and death blank.</small>			
<b>NAME OF AUTHOR</b> <input type="text" value="b Glenn Moody"/>		<b>DATES OF BIRTH AND DEATH</b> Year Born <input type="text" value="1945"/> Year Died <input type="text" value=""/>	
<small>Was this contribution to the work a "work made for hire"?</small> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>AUTHOR'S NATIONALITY OR DOMICILE</b> <small>Name of Country</small> <small>OR</small> <input type="checkbox"/> Citizen of <input type="text" value="USA"/> <input type="checkbox"/> Domiciled in <input type="text" value="USA"/>	
		<b>WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK</b> <small>Anonymous?    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No</small> <small>Pseudonymous?    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No</small>	
<b>NATURE OF AUTHORSHIP</b> <input type="checkbox"/> 3-Dimensional sculpture <input type="checkbox"/> 2-Dimensional artwork <input type="checkbox"/> Reproduction of work of art <input type="checkbox"/> Design on sheetlike material <input type="checkbox"/> Map <input type="checkbox"/> Photograph <input type="checkbox"/> Jewelry design <input type="checkbox"/> Technical drawing <input type="checkbox"/> Text <input type="checkbox"/> Architectural work <input type="checkbox"/> See Instructions			
<b>3</b>		<b>YEAR IN WHICH CREATION OF THIS WORK WAS COMPLETED</b> <input type="text" value="2002"/> <small>This information must be given if the claimant is the same as the author given in space 2.</small>	
		<b>DATE AND NATION OF FIRST PUBLICATION OF THIS PARTICULAR WORK</b> <small>Complete this information ONLY if this work has been published.</small> <small>Month</small> <input type="text" value="June"/> <small>Year</small> <input type="text" value="2002"/> <small>Day</small> <input type="text" value=""/> <small>Year</small> <input type="text" value=""/>	
<b>4</b>		<b>COPYRIGHT CLAIMANT(S)</b> <input type="text" value="Schonbek Worldwide Lighting, Inc. 61 Industrial Blvd. Plattsburgh, NY 12901"/> <small>See instructions before completing this space.</small>	
		<small>TRANSFER</small> <input type="checkbox"/> If the claimant(s) named here in space 4 is (are) different from the author(s) named in space 2, give a brief statement of how the claimant(s) obtained ownership of the copyright.	
		<small>Glenn Moody and Birch &amp; Company executed Assignments to Schonbek transferring all copyright rights in and to their respective contributions.</small>	
<b>MORE ON BACK</b> <input type="checkbox"/>		<small>Complete all applicable spaces (numbers 5-8) on the reverse side of this page.</small> <small>See detailed instructions.</small>	
		<small>Sign the form at line 8.</small>	
<small>APRIL RECEIVED</small> <b>APR 30 2004</b>			
<small>ONE DEPOSIT RECEIVED</small>			
<small>TWO DEPOSITS RECEIVED</small> <b>APR 30 2004</b>			
<small>FUND RECEIVED</small>			

J  
CHECKED BY  
[Signature]  
CORRESPONDENCE

Yes

FOR  
COPYRIGHT  
OFFICE  
USE  
ONLY**DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.****PREVIOUS REGISTRATION** Has registration for this work, or for an earlier version of this work, already been made in the Copyright Office?

Yes  No If your answer is "Yes," why is another registration being sought? (Check appropriate box) **V**

- This is the first published edition of a work previously registered in unpublished form.
- This is the first application submitted by this author as copyright claimant.
- This is a changed version of the work, as shown by space 6 on this application.

If your answer is "Yes," give Previous Registration Number **V**Year of Registration **V****DERIVATIVE WORK OR COMPILATION** Complete both spaces 6a and 6b for a derivative work; complete only 6b for a compilation.

a. Preexisting Material Identify any preexisting work or works that this work is based on or incorporated. **V**

1993 Catalog titled "The Gallery" and 1993 Catalog titled "The Catalog"

See instructions  
before completing this  
space.b. Material Added to This Work Give a brief, general statement of the material that has been added to this work and in which copyright is claimed. **V**

Updated and additional photographs and text to show additional product lines.

**DEPOSIT ACCOUNT** If the registration fee is to be charged to a Deposit Account established in the Copyright Office, give name and number of Account.Name **V**Account Number **V****CORRESPONDENCE** Give name and address to which correspondence about this application should be sent. Name/Address/Ap/City/State/ZIP **V**

Brett M. Hutton, Esq.

Healin Rothenberg Farley &amp; Mealli P.C.

5 Columbia Circle

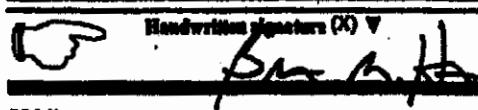
Albany, NY 12203

Area Code and Telephone Number **V** (518) 452-5800**CERTIFICATION** I, the undersigned, hereby certify that I am thecheck only one **V** author other copyright claimant owner of exclusive right(s) authorized agent of Schonbeck Worldwide Lighting, Inc.Name of author or other copyright claimant, or owner of exclusive rights **V**

of the work identified in this application and that the statements made by me in this application are correct to the best of my knowledge.

Typed or printed name and date **V** If this application gives a date of publication in space 3, do not sign and submit it before that date.

Brett M. Hutton

Date **V** April 22, 2004Handwritten signature (**V**)  
MAIL  
CERTIFI-  
CATE TOName **V**  
Brett M. Hutton, Esq.  
Healin Rothenberg Farley & Mealli P.C.Certificate  
will be  
mailed in  
window  
envelopeNumber/Street/Post **V**  
5 Columbia Circle  
City/State/Zip **V**  
Albany, NY 12203

1. COUNTRY OF CITIZENSHIP  
2. COUNTRY OF RESIDENCE  
3. ADDRESS  
4. DATE OF BIRTH  
5. NUMBER OF CHILDREN  
6. NUMBER OF PARENTS  
7. NUMBER OF SIBLINGS  
8. NUMBER OF SPOUSES  
9. NUMBER OF CHILDREN  
10. NUMBER OF PARENTS  
11. NUMBER OF SIBLINGS  
12. NUMBER OF SPOUSES  
13. NUMBER OF CHILDREN  
14. NUMBER OF PARENTS  
15. NUMBER OF SIBLINGS  
16. NUMBER OF SPOUSES  
17. NUMBER OF CHILDREN  
18. NUMBER OF PARENTS  
19. NUMBER OF SIBLINGS  
20. NUMBER OF SPOUSES  
21. NUMBER OF CHILDREN  
22. NUMBER OF PARENTS  
23. NUMBER OF SIBLINGS  
24. NUMBER OF SPOUSES  
25. NUMBER OF CHILDREN  
26. NUMBER OF PARENTS  
27. NUMBER OF SIBLINGS  
28. NUMBER OF SPOUSES  
29. NUMBER OF CHILDREN  
30. NUMBER OF PARENTS  
31. NUMBER OF SIBLINGS  
32. NUMBER OF SPOUSES  
33. NUMBER OF CHILDREN  
34. NUMBER OF PARENTS  
35. NUMBER OF SIBLINGS  
36. NUMBER OF SPOUSES  
37. NUMBER OF CHILDREN  
38. NUMBER OF PARENTS  
39. NUMBER OF SIBLINGS  
40. NUMBER OF SPOUSES  
41. NUMBER OF CHILDREN  
42. NUMBER OF PARENTS  
43. NUMBER OF SIBLINGS  
44. NUMBER OF SPOUSES  
45. NUMBER OF CHILDREN  
46. NUMBER OF PARENTS  
47. NUMBER OF SIBLINGS  
48. NUMBER OF SPOUSES  
49. NUMBER OF CHILDREN  
50. NUMBER OF PARENTS  
51. NUMBER OF SIBLINGS  
52. NUMBER OF SPOUSES  
53. NUMBER OF CHILDREN  
54. NUMBER OF PARENTS  
55. NUMBER OF SIBLINGS  
56. NUMBER OF SPOUSES  
57. NUMBER OF CHILDREN  
58. NUMBER OF PARENTS  
59. NUMBER OF SIBLINGS  
60. NUMBER OF SPOUSES  
61. NUMBER OF CHILDREN  
62. NUMBER OF PARENTS  
63. NUMBER OF SIBLINGS  
64. NUMBER OF SPOUSES  
65. NUMBER OF CHILDREN  
66. NUMBER OF PARENTS  
67. NUMBER OF SIBLINGS  
68. NUMBER OF SPOUSES  
69. NUMBER OF CHILDREN  
70. NUMBER OF PARENTS  
71. NUMBER OF SIBLINGS  
72. NUMBER OF SPOUSES  
73. NUMBER OF CHILDREN  
74. NUMBER OF PARENTS  
75. NUMBER OF SIBLINGS  
76. NUMBER OF SPOUSES  
77. NUMBER OF CHILDREN  
78. NUMBER OF PARENTS  
79. NUMBER OF SIBLINGS  
80. NUMBER OF SPOUSES  
81. NUMBER OF CHILDREN  
82. NUMBER OF PARENTS  
83. NUMBER OF SIBLINGS  
84. NUMBER OF SPOUSES  
85. NUMBER OF CHILDREN  
86. NUMBER OF PARENTS  
87. NUMBER OF SIBLINGS  
88. NUMBER OF SPOUSES  
89. NUMBER OF CHILDREN  
90. NUMBER OF PARENTS  
91. NUMBER OF SIBLINGS  
92. NUMBER OF SPOUSES  
93. NUMBER OF CHILDREN  
94. NUMBER OF PARENTS  
95. NUMBER OF SIBLINGS  
96. NUMBER OF SPOUSES  
97. NUMBER OF CHILDREN  
98. NUMBER OF PARENTS  
99. NUMBER OF SIBLINGS  
100. NUMBER OF SPOUSES  
101. NUMBER OF CHILDREN  
102. NUMBER OF PARENTS  
103. NUMBER OF SIBLINGS  
104. NUMBER OF SPOUSES  
105. NUMBER OF CHILDREN  
106. NUMBER OF PARENTS  
107. NUMBER OF SIBLINGS  
108. NUMBER OF SPOUSES  
109. NUMBER OF CHILDREN  
110. NUMBER OF PARENTS  
111. NUMBER OF SIBLINGS  
112. NUMBER OF SPOUSES  
113. NUMBER OF CHILDREN  
114. NUMBER OF PARENTS  
115. NUMBER OF SIBLINGS  
116. NUMBER OF SPOUSES  
117. NUMBER OF CHILDREN  
118. NUMBER OF PARENTS  
119. NUMBER OF SIBLINGS  
120. NUMBER OF SPOUSES  
121. NUMBER OF CHILDREN  
122. NUMBER OF PARENTS  
123. NUMBER OF SIBLINGS  
124. NUMBER OF SPOUSES  
125. NUMBER OF CHILDREN  
126. NUMBER OF PARENTS  
127. NUMBER OF SIBLINGS  
128. NUMBER OF SPOUSES  
129. NUMBER OF CHILDREN  
130. NUMBER OF PARENTS  
131. NUMBER OF SIBLINGS  
132. NUMBER OF SPOUSES  
133. NUMBER OF CHILDREN  
134. NUMBER OF PARENTS  
135. NUMBER OF SIBLINGS  
136. NUMBER OF SPOUSES  
137. NUMBER OF CHILDREN  
138. NUMBER OF PARENTS  
139. NUMBER OF SIBLINGS  
140. NUMBER OF SPOUSES  
141. NUMBER OF CHILDREN  
142. NUMBER OF PARENTS  
143. NUMBER OF SIBLINGS  
144. NUMBER OF SPOUSES  
145. NUMBER OF CHILDREN  
146. NUMBER OF PARENTS  
147. NUMBER OF SIBLINGS  
148. NUMBER OF SPOUSES  
149. NUMBER OF CHILDREN  
150. NUMBER OF PARENTS  
151. NUMBER OF SIBLINGS  
152. NUMBER OF SPOUSES  
153. NUMBER OF CHILDREN  
154. NUMBER OF PARENTS  
155. NUMBER OF SIBLINGS  
156. NUMBER OF SPOUSES  
157. NUMBER OF CHILDREN  
158. NUMBER OF PARENTS  
159. NUMBER OF SIBLINGS  
160. NUMBER OF SPOUSES  
161. NUMBER OF CHILDREN  
162. NUMBER OF PARENTS  
163. NUMBER OF SIBLINGS  
164. NUMBER OF SPOUSES  
165. NUMBER OF CHILDREN  
166. NUMBER OF PARENTS  
167. NUMBER OF SIBLINGS  
168. NUMBER OF SPOUSES  
169. NUMBER OF CHILDREN  
170. NUMBER OF PARENTS  
171. NUMBER OF SIBLINGS  
172. NUMBER OF SPOUSES  
173. NUMBER OF CHILDREN  
174. NUMBER OF PARENTS  
175. NUMBER OF SIBLINGS  
176. NUMBER OF SPOUSES  
177. NUMBER OF CHILDREN  
178. NUMBER OF PARENTS  
179. NUMBER OF SIBLINGS  
180. NUMBER OF SPOUSES  
181. NUMBER OF CHILDREN  
182. NUMBER OF PARENTS  
183. NUMBER OF SIBLINGS  
184. NUMBER OF SPOUSES  
185. NUMBER OF CHILDREN  
186. NUMBER OF PARENTS  
187. NUMBER OF SIBLINGS  
188. NUMBER OF SPOUSES  
189. NUMBER OF CHILDREN  
190. NUMBER OF PARENTS  
191. NUMBER OF SIBLINGS  
192. NUMBER OF SPOUSES  
193. NUMBER OF CHILDREN  
194. NUMBER OF PARENTS  
195. NUMBER OF SIBLINGS  
196. NUMBER OF SPOUSES  
197. NUMBER OF CHILDREN  
198. NUMBER OF PARENTS  
199. NUMBER OF SIBLINGS  
200. NUMBER OF SPOUSES  
201. NUMBER OF CHILDREN  
202. NUMBER OF PARENTS  
203. NUMBER OF SIBLINGS  
204. NUMBER OF SPOUSES  
205. NUMBER OF CHILDREN  
206. NUMBER OF PARENTS  
207. NUMBER OF SIBLINGS  
208. NUMBER OF SPOUSES  
209. NUMBER OF CHILDREN  
210. NUMBER OF PARENTS  
211. NUMBER OF SIBLINGS  
212. NUMBER OF SPOUSES  
213. NUMBER OF CHILDREN  
214. NUMBER OF PARENTS  
215. NUMBER OF SIBLINGS  
216. NUMBER OF SPOUSES  
217. NUMBER OF CHILDREN  
218. NUMBER OF PARENTS  
219. NUMBER OF SIBLINGS  
220. NUMBER OF SPOUSES  
221. NUMBER OF CHILDREN  
222. NUMBER OF PARENTS  
223. NUMBER OF SIBLINGS  
224. NUMBER OF SPOUSES  
225. NUMBER OF CHILDREN  
226. NUMBER OF PARENTS  
227. NUMBER OF SIBLINGS  
228. NUMBER OF SPOUSES  
229. NUMBER OF CHILDREN  
230. NUMBER OF PARENTS  
231. NUMBER OF SIBLINGS  
232. NUMBER OF SPOUSES  
233. NUMBER OF CHILDREN  
234. NUMBER OF PARENTS  
235. NUMBER OF SIBLINGS  
236. NUMBER OF SPOUSES  
237. NUMBER OF CHILDREN  
238. NUMBER OF PARENTS  
239. NUMBER OF SIBLINGS  
240. NUMBER OF SPOUSES  
241. NUMBER OF CHILDREN  
242. NUMBER OF PARENTS  
243. NUMBER OF SIBLINGS  
244. NUMBER OF SPOUSES  
245. NUMBER OF CHILDREN  
246. NUMBER OF PARENTS  
247. NUMBER OF SIBLINGS  
248. NUMBER OF SPOUSES  
249. NUMBER OF CHILDREN  
250. NUMBER OF PARENTS  
251. NUMBER OF SIBLINGS  
252. NUMBER OF SPOUSES  
253. NUMBER OF CHILDREN  
254. NUMBER OF PARENTS  
255. NUMBER OF SIBLINGS  
256. NUMBER OF SPOUSES  
257. NUMBER OF CHILDREN  
258. NUMBER OF PARENTS  
259. NUMBER OF SIBLINGS  
260. NUMBER OF SPOUSES  
261. NUMBER OF CHILDREN  
262. NUMBER OF PARENTS  
263. NUMBER OF SIBLINGS  
264. NUMBER OF SPOUSES  
265. NUMBER OF CHILDREN  
266. NUMBER OF PARENTS  
267. NUMBER OF SIBLINGS  
268. NUMBER OF SPOUSES  
269. NUMBER OF CHILDREN  
270. NUMBER OF PARENTS  
271. NUMBER OF SIBLINGS  
272. NUMBER OF SPOUSES  
273. NUMBER OF CHILDREN  
274. NUMBER OF PARENTS  
275. NUMBER OF SIBLINGS  
276. NUMBER OF SPOUSES  
277. NUMBER OF CHILDREN  
278. NUMBER OF PARENTS  
279. NUMBER OF SIBLINGS  
280. NUMBER OF SPOUSES  
281. NUMBER OF CHILDREN  
282. NUMBER OF PARENTS  
283. NUMBER OF SIBLINGS  
284. NUMBER OF SPOUSES  
285. NUMBER OF CHILDREN  
286. NUMBER OF PARENTS  
287. NUMBER OF SIBLINGS  
288. NUMBER OF SPOUSES  
289. NUMBER OF CHILDREN  
290. NUMBER OF PARENTS  
291. NUMBER OF SIBLINGS  
292. NUMBER OF SPOUSES  
293. NUMBER OF CHILDREN  
294. NUMBER OF PARENTS  
295. NUMBER OF SIBLINGS  
296. NUMBER OF SPOUSES  
297. NUMBER OF CHILDREN  
298. NUMBER OF PARENTS  
299. NUMBER OF SIBLINGS  
300. NUMBER OF SPOUSES  
301. NUMBER OF CHILDREN  
302. NUMBER OF PARENTS  
303. NUMBER OF SIBLINGS  
304. NUMBER OF SPOUSES  
305. NUMBER OF CHILDREN  
306. NUMBER OF PARENTS  
307. NUMBER OF SIBLINGS  
308. NUMBER OF SPOUSES  
309. NUMBER OF CHILDREN  
310. NUMBER OF PARENTS  
311. NUMBER OF SIBLINGS  
312. NUMBER OF SPOUSES  
313. NUMBER OF CHILDREN  
314. NUMBER OF PARENTS  
315. NUMBER OF SIBLINGS  
316. NUMBER OF SPOUSES  
317. NUMBER OF CHILDREN  
318. NUMBER OF PARENTS  
319. NUMBER OF SIBLINGS  
320. NUMBER OF SPOUSES  
321. NUMBER OF CHILDREN  
322. NUMBER OF PARENTS  
323. NUMBER OF SIBLINGS  
324. NUMBER OF SPOUSES  
325. NUMBER OF CHILDREN  
326. NUMBER OF PARENTS  
327. NUMBER OF SIBLINGS  
328. NUMBER OF SPOUSES  
329. NUMBER OF CHILDREN  
330. NUMBER OF PARENTS  
331. NUMBER OF SIBLINGS  
332. NUMBER OF SPOUSES  
333. NUMBER OF CHILDREN  
334. NUMBER OF PARENTS  
335. NUMBER OF SIBLINGS  
336. NUMBER OF SPOUSES  
337. NUMBER OF CHILDREN  
338. NUMBER OF PARENTS  
339. NUMBER OF SIBLINGS  
340. NUMBER OF SPOUSES  
341. NUMBER OF CHILDREN  
342. NUMBER OF PARENTS  
343. NUMBER OF SIBLINGS  
344. NUMBER OF SPOUSES  
345. NUMBER OF CHILDREN  
346. NUMBER OF PARENTS  
347. NUMBER OF SIBLINGS  
348. NUMBER OF SPOUSES  
349. NUMBER OF CHILDREN  
350. NUMBER OF PARENTS  
351. NUMBER OF SIBLINGS  
352. NUMBER OF SPOUSES  
353. NUMBER OF CHILDREN  
354. NUMBER OF PARENTS  
355. NUMBER OF SIBLINGS  
356. NUMBER OF SPOUSES  
357. NUMBER OF CHILDREN  
358. NUMBER OF PARENTS  
359. NUMBER OF SIBLINGS  
360. NUMBER OF SPOUSES  
361. NUMBER OF CHILDREN  
362. NUMBER OF PARENTS  
363. NUMBER OF SIBLINGS  
364. NUMBER OF SPOUSES  
365. NUMBER OF CHILDREN  
366. NUMBER OF PARENTS  
367. NUMBER OF SIBLINGS  
368. NUMBER OF SPOUSES  
369. NUMBER OF CHILDREN  
370. NUMBER OF PARENTS  
371. NUMBER OF SIBLINGS  
372. NUMBER OF SPOUSES  
373. NUMBER OF CHILDREN  
374. NUMBER OF PARENTS  
375. NUMBER OF SIBLINGS  
376. NUMBER OF SPOUSES  
377. NUMBER OF CHILDREN  
378. NUMBER OF PARENTS  
379. NUMBER OF SIBLINGS  
380. NUMBER OF SPOUSES  
381. NUMBER OF CHILDREN  
382. NUMBER OF PARENTS  
383. NUMBER OF SIBLINGS  
384. NUMBER OF SPOUSES  
385. NUMBER OF CHILDREN  
386. NUMBER OF PARENTS  
387. NUMBER OF SIBLINGS  
388. NUMBER OF SPOUSES  
389. NUMBER OF CHILDREN  
390. NUMBER OF PARENTS  
391. NUMBER OF SIBLINGS  
392. NUMBER OF SPOUSES  
393. NUMBER OF CHILDREN  
394. NUMBER OF PARENTS  
395. NUMBER OF SIBLINGS  
396. NUMBER OF SPOUSES  
397. NUMBER OF CHILDREN  
398. NUMBER OF PARENTS  
399. NUMBER OF SIBLINGS  
400. NUMBER OF SPOUSES  
401. NUMBER OF CHILDREN  
402. NUMBER OF PARENTS  
403. NUMBER OF SIBLINGS  
404. NUMBER OF SPOUSES  
405. NUMBER OF CHILDREN  
406. NUMBER OF PARENTS  
407. NUMBER OF SIBLINGS  
408. NUMBER OF SPOUSES  
409. NUMBER OF CHILDREN  
410. NUMBER OF PARENTS  
411. NUMBER OF SIBLINGS  
412. NUMBER OF SPOUSES  
413. NUMBER OF CHILDREN  
414. NUMBER OF PARENTS  
415. NUMBER OF SIBLINGS  
416. NUMBER OF SPOUSES  
417. NUMBER OF CHILDREN  
418. NUMBER OF PARENTS  
419. NUMBER OF SIBLINGS  
420. NUMBER OF SPOUSES  
421. NUMBER OF CHILDREN  
422. NUMBER OF PARENTS  
423. NUMBER OF SIBLINGS  
424. NUMBER OF SPOUSES  
425. NUMBER OF CHILDREN  
426. NUMBER OF PARENTS  
427. NUMBER OF SIBLINGS  
428. NUMBER OF SPOUSES  
429. NUMBER OF CHILDREN  
430. NUMBER OF PARENTS  
431. NUMBER OF SIBLINGS  
432. NUMBER OF SPOUSES  
433. NUMBER OF CHILDREN  
434. NUMBER OF PARENTS  
435. NUMBER OF SIBLINGS  
436. NUMBER OF SPOUSES  
437. NUMBER OF CHILDREN  
438. NUMBER OF PARENTS  
439. NUMBER OF SIBLINGS  
440. NUMBER OF SPOUSES  
441. NUMBER OF CHILDREN  
442. NUMBER OF PARENTS  
443. NUMBER OF SIBLINGS  
444. NUMBER OF SPOUSES  
445. NUMBER OF CHILDREN  
446. NUMBER OF PARENTS  
447. NUMBER OF SIBLINGS  
448. NUMBER OF SPOUSES  
449. NUMBER OF CHILDREN  
450. NUMBER OF PARENTS  
451. NUMBER OF SIBLINGS  
452. NUMBER OF SPOUSES  
453. NUMBER OF CHILDREN  
454. NUMBER OF PARENTS  
455. NUMBER OF SIBLINGS  
456. NUMBER OF SPOUSES  
457. NUMBER OF CHILDREN  
458. NUMBER OF PARENTS  
459. NUMBER OF SIBLINGS  
460. NUMBER OF SPOUSES  
461. NUMBER OF CHILDREN  
462. NUMBER OF PARENTS  
463. NUMBER OF SIBLINGS  
464. NUMBER OF SPOUSES  
465. NUMBER OF CHILDREN  
466. NUMBER OF PARENTS  
467. NUMBER OF SIBLINGS  
468. NUMBER OF SPOUSES  
469. NUMBER OF CHILDREN  
470. NUMBER OF PARENTS  
471. NUMBER OF SIBLINGS  
472. NUMBER OF SPOUSES  
473. NUMBER OF CHILDREN  
474. NUMBER OF PARENTS  
475. NUMBER OF SIBLINGS  
476. NUMBER OF SPOUSES  
477. NUMBER OF CHILDREN  
478. NUMBER OF PARENTS  
479. NUMBER OF SIBLINGS  
480. NUMBER OF SPOUSES  
481. NUMBER OF CHILDREN  
482. NUMBER OF PARENTS  
483. NUMBER OF SIBLINGS  
484. NUMBER OF SPOUSES  
485. NUMBER OF CHILDREN  
486. NUMBER OF PARENTS  
487. NUMBER OF SIBLINGS  
488. NUMBER OF SPOUSES  
489. NUMBER OF CHILDREN  
490. NUMBER OF PARENTS  
491. NUMBER OF SIBLINGS  
492. NUMBER OF SPOUSES  
493. NUMBER OF CHILDREN  
494. NUMBER OF PARENTS  
495. NUMBER OF SIBLINGS  
496. NUMBER OF SPOUSES  
497. NUMBER OF CHILDREN  
498. NUMBER OF PARENTS  
499. NUMBER OF SIBLINGS  
500. NUMBER OF SPOUSES  
501. NUMBER OF CHILDREN  
502. NUMBER OF PARENTS  
503. NUMBER OF SIBLINGS  
504. NUMBER OF SPOUSES  
505. NUMBER OF CHILDREN  
506. NUMBER OF PARENTS  
507. NUMBER OF SIBLINGS  
508. NUMBER OF SPOUSES  
509. NUMBER OF CHILDREN  
510. NUMBER OF PARENTS  
511. NUMBER OF SIBLINGS  
512. NUMBER OF SPOUSES  
513. NUMBER OF CHILDREN  
514. NUMBER OF PARENTS  
515. NUMBER OF SIBLINGS  
516. NUMBER OF SPOUSES  
517. NUMBER OF CHILDREN  
518. NUMBER OF PARENTS  
519. NUMBER OF SIBLINGS  
520. NUMBER OF SPOUSES  
521. NUMBER OF CHILDREN  
522. NUMBER OF PARENTS  
523. NUMBER OF SIBLINGS  
524. NUMBER OF SPOUSES  
525. NUMBER OF CHILDREN  
526. NUMBER OF PARENTS  
527. NUMBER OF SIBLINGS  
528. NUMBER OF SPOUSES  
529. NUMBER OF CHILDREN  
530. NUMBER OF PARENTS  
531. NUMBER OF SIBLINGS  
532. NUMBER OF SPOUSES  
533. NUMBER OF CHILDREN  
534. NUMBER OF PARENTS  
535. NUMBER OF SIBLINGS  
536. NUMBER OF SPOUSES  
537. NUMBER OF CHILDREN  
538. NUMBER OF PARENTS  
539. NUMBER OF SIBLINGS  
540. NUMBER OF SPOUSES  
541. NUMBER OF CHILDREN  
542. NUMBER OF PARENTS  
543. NUMBER OF SIBLINGS  
544. NUMBER OF SPOUSES  
545. NUMBER OF CHILDREN  
546. NUMBER OF PARENTS  
547. NUMBER OF SIBLINGS  
548. NUMBER OF SPOUSES  
549. NUMBER OF CHILDREN  
550. NUMBER OF PARENTS  
551. NUMBER OF SIBLINGS  
552. NUMBER OF SPOUSES  
553. NUMBER OF CHILDREN  
554. NUMBER OF PARENTS  
555. NUMBER OF SIBLINGS  
556. NUMBER OF SPOUSES  
557. NUMBER OF CHILDREN  
558. NUMBER OF PARENTS  
559. NUMBER OF SIBLINGS  
560. NUMBER OF SPOUSES  
561. NUMBER OF CHILDREN  
562. NUMBER OF PARENTS  
563. NUMBER OF SIBLINGS  
564. NUMBER OF SPOUSES  
565. NUMBER OF CHILDREN  
566. NUMBER OF PARENTS  
567. NUMBER OF SIBLINGS  
568. NUMBER OF SPOUSES  
569. NUMBER OF CHILDREN  
570. NUMBER OF PARENTS  
571. NUMBER OF SIBLINGS  
572. NUMBER OF SPOUSES  
573. NUMBER OF CHILDREN  
574. NUMBER OF PARENTS  
575. NUMBER OF SIBLINGS  
576. NUMBER OF SPOUSES  
577. NUMBER OF CHILDREN  
578. NUMBER OF PARENTS  
579. NUMBER OF SIBLINGS  
580. NUMBER OF SPOUSES  
581. NUMBER OF CHILDREN  
582. NUMBER OF PARENTS  
583. NUMBER OF SIBLINGS  
584. NUMBER OF SPOUSES  
585. NUMBER OF CHILDREN  
586. NUMBER OF PARENTS  
587. NUMBER OF SIBLINGS  
588. NUMBER OF SPOUSES  
589. NUMBER OF CHILDREN  
590. NUMBER OF PARENTS  
591. NUMBER OF SIBLINGS  
592. NUMBER OF SPOUSES  
593. NUMBER OF CHILDREN  
594. NUMBER OF PARENTS  
595. NUMBER OF SIBLINGS  
596. NUMBER OF SPOUSES  
597. NUMBER OF CHILDREN  
598. NUMBER OF PARENTS  
599. NUMBER OF SIBLINGS  
600. NUMBER OF SPOUSES  
601. NUMBER OF CHILDREN  
602. NUMBER OF PARENTS  
603. NUMBER OF SIBLINGS  
604. NUMBER OF SPOUSES  
605. NUMBER OF CHILDREN  
606. NUMBER OF PARENTS  
607. NUMBER OF SIBLINGS  
608. NUMBER OF SPOUSES  
609. NUMBER OF CHILDREN  
610. NUMBER OF PARENTS  
611. NUMBER OF SIBLINGS  
612. NUMBER OF SPOUSES  
613. NUMBER OF CHILDREN  
614. NUMBER OF PARENTS  
615. NUMBER OF SIBLINGS  
616. NUMBER OF SPOUSES  
617. NUMBER OF CHILDREN  
618. NUMBER OF PARENTS  
619. NUMBER OF SIBLINGS  
620. NUMBER OF SPOUSES  
621. NUMBER OF CHILDREN  
622. NUMBER OF PARENTS  
623. NUMBER OF SIBLINGS  
624. NUMBER OF SPOUSES  
625. NUMBER OF CHILDREN  
626. NUMBER OF PARENTS  
627. NUMBER OF SIBLINGS  
628. NUMBER OF SPOUSES  
629. NUMBER OF CHILDREN  
630. NUMBER OF PARENTS  
631. NUMBER OF SIBLINGS  
632. NUMBER OF SPOUSES  
633. NUMBER OF CHILDREN  
634. NUMBER OF PARENTS  
635. NUMBER OF SIBLINGS  
636. NUMBER OF SPOUSES  
637. NUMBER OF CHILDREN  
638. NUMBER OF PARENTS  
639. NUMBER OF SIBLINGS  
640. NUMBER OF SPOUSES  
641. NUMBER OF CHILDREN  
642. NUMBER OF PARENTS  
643. NUMBER OF SIBLINGS  
644. NUMBER OF SPOUSES  
645. NUMBER OF CHILDREN  
646. NUMBER OF PARENTS  
647. NUMBER OF SIBLINGS  
648. NUMBER OF SPOUSES  
649. NUMBER OF CHILDREN  
650. NUMBER OF PARENTS  
651. NUMBER OF SIBLINGS  
652. NUMBER OF SPOUSES  
653. NUMBER OF CHILDREN  
654. NUMBER OF PARENTS  
655. NUMBER OF SIBLINGS  
656. NUMBER OF SPOUSES  
657. NUMBER OF CHILDREN  
658. NUMBER OF PARENTS  
659. NUMBER OF SIBLINGS  
660. NUMBER OF SPOUSES  
661. NUMBER OF CHILDREN  
662. NUMBER OF PARENTS  
663. NUMBER OF SIBLINGS  
664. NUMBER OF SPOUSES  
665. NUMBER OF CHILDREN  
666. NUMBER OF PARENTS  
667. NUMBER OF SIBLINGS  
668. NUMBER OF SPOUSES  
669. NUMBER OF CHILDREN  
670. NUMBER OF PARENTS  
671. NUMBER OF SIBLINGS  
672. NUMBER OF SPOUSES  
673. NUMBER OF CHILDREN  
674. NUMBER OF PARENTS  
675. NUMBER OF SIBLINGS  
676. NUMBER OF SPOUSES  
677. NUMBER OF CHILDREN  
678. NUMBER OF PARENTS  
679. NUMBER OF SIBLINGS  
680. NUMBER OF SPOUSES  
681. NUMBER OF CHILDREN  
682. NUMBER OF PARENTS  
683. NUMBER OF SIBLINGS  
684. NUMBER OF SPOUSES  
685. NUMBER OF CHILDREN  
686. NUMBER OF PARENTS  
687. NUMBER OF SIBLINGS  
688. NUMBER OF SPOUSES  
689. NUMBER OF CHILDREN  
690. NUMBER OF PARENTS  
691. NUMBER OF SIBLINGS  
692. NUMBER OF SPOUSES  
693. NUMBER OF CHILDREN  
694. NUMBER OF PARENTS  
695. NUMBER OF SIBLINGS  
696. NUMBER OF SPOUSES  
697. NUMBER OF CHILDREN  
698. NUMBER OF PARENTS  
699. NUMBER OF SIBLINGS  
700. NUMBER OF SPOUSES  
701. NUMBER OF CHILDREN  
702. NUMBER OF PARENTS  
703. NUMBER OF SIBLINGS  
704. NUMBER OF SPOUSES  
705. NUMBER OF CHILDREN  
706. NUMBER OF PARENTS  
707. NUMBER OF SIBLINGS  
708. NUMBER OF SPOUSES  
709. NUMBER OF CHILDREN  
710. NUMBER OF PARENTS  
711. NUMBER OF SIBLINGS  
712. NUMBER OF SPOUSES  
713. NUMBER OF CHILDREN  
714. NUMBER OF PARENTS  
715. NUMBER OF SIBLINGS  
716. NUMBER OF SPOUSES  
717. NUMBER OF CHILDREN  
718. NUMBER OF PARENTS  
719. NUMBER OF SIBLINGS  
720. NUMBER OF SPOUSES  
721. NUMBER OF CHILDREN  
722. NUMBER OF PARENTS  
723. NUMBER OF SIBLINGS  
724. NUMBER OF SPOUSES  
725. NUMBER OF CHILDREN  
726. NUMBER OF PARENTS  
727. NUMBER OF SIBLINGS  
728. NUMBER OF SPOUSES  
729. NUMBER OF CHILDREN  
730. NUMBER OF PARENTS  
731. NUMBER OF SIBLINGS  
732. NUMBER OF SPOUSES  
733. NUMBER OF CHILDREN  
734. NUMBER OF PARENTS  
735. NUMBER OF SIBLINGS  
736. NUMBER OF SPOUSES  
737. NUMBER OF CHILDREN  
738. NUMBER OF PARENTS  
739. NUMBER OF SIBLINGS  
740. NUMBER OF SPOUSES  
741. NUMBER OF CHILDREN  
742. NUMBER OF PARENTS  
743. NUMBER OF SIBLINGS  
744. NUMBER OF SPOUSES  
745. NUMBER OF CHILDREN  
746. NUMBER OF PARENTS  
747. NUMBER OF SIBLINGS  
748. NUMBER OF SPOUSES  
749. NUMBER OF CHILDREN  
750. NUMBER OF PARENTS  
751. NUMBER OF SIBLINGS  
752. NUMBER OF SPOUSES  
753. NUMBER OF CHILDREN  
754. NUMBER OF PARENTS  
755. NUMBER OF SIBLINGS  
756. NUMBER OF SPOUSES  
757. NUMBER OF CHILDREN  
758. NUMBER OF PARENTS  
759. NUMBER OF SIBLINGS  
760. NUMBER OF SPOUSES  
761. NUMBER OF CHILDREN  
762. NUMBER OF PARENTS  
763. NUMBER OF SIBLINGS  
764. NUMBER OF SPOUSES  
765. NUMBER OF CHILDREN  
766. NUMBER OF PARENTS  
767. NUMBER OF SIBLINGS  
768. NUMBER OF SPOUSES  
769. NUMBER OF CHILDREN  
770. NUMBER OF PARENTS  
771. NUMBER OF SIBLINGS  
772. NUMBER OF SPOUSES  
773. NUMBER OF CHILDREN  
774. NUMBER OF PARENTS  
775. NUMBER OF SIBLINGS  
776. NUMBER OF SPOUSES  
777. NUMBER OF CHILDREN  
778. NUMBER OF PARENTS  
779. NUMBER OF SIBLINGS  
780. NUMBER OF SPOUSES  
781. NUMBER OF CHILDREN  
782. NUMBER OF PARENTS  
783. NUMBER OF SIBLINGS  
784. NUMBER OF SPOUSES  
785. NUMBER OF CHILDREN  
786. NUMBER OF PARENTS  
787. NUMBER OF SIBLINGS  
788. NUMBER OF SPOUSES  
789. NUMBER OF CHILDREN  
790. NUMBER OF PARENTS  
791. NUMBER OF SIBLINGS  
792. NUMBER OF SPOUSES  
793. NUMBER OF CHILDREN  
794. NUMBER OF PARENTS  
795. NUMBER OF SIBLINGS  
796. NUMBER OF SPOUSES  
797. NUMBER OF CHILDREN  
798. NUMBER OF PARENTS  
799. NUMBER OF SIBLINGS  
800. NUMBER OF SPOUSES  
801. NUMBER OF CHILDREN  
802. NUMBER OF PARENTS  
803. NUMBER OF SIBLINGS  
804. NUMBER OF SPOUSES  
805. NUMBER OF CHILDREN  
806. NUMBER OF PARENTS  
807. NUMBER OF SIBLINGS  
808. NUMBER OF SPOUSES  
809. NUMBER OF CHILDREN  
810. NUMBER OF PARENTS  
811. NUMBER OF SIBLINGS  
812. NUMBER OF SPOUSES  
813. NUMBER OF CHILDREN  
814. NUMBER OF PARENTS  
815. NUMBER OF SIBLINGS  
816. NUMBER OF SPOUSES  
817. NUMBER OF CHILDREN  
818. NUMBER OF PARENTS  
819. NUMBER OF SIBLINGS  
820. NUMBER OF SPOUSES  
821. NUMBER OF CHILDREN  
822. NUMBER OF PARENTS  
823. NUMBER OF SIBLINGS  
824. NUMBER OF SPOUSES  
825. NUMBER OF CHILDREN  
826. NUMBER OF PARENTS  
827. NUMBER OF SIBLINGS  
828. NUMBER OF SPOUSES  
829. NUMBER OF CHILDREN  
830. NUMBER OF PARENTS  
831. NUMBER OF SIBLINGS  
832. NUMBER OF SPOUSES  
833. NUMBER OF CHILDREN  
834. NUMBER OF PARENTS  
835. NUMBER OF SIBLINGS  
836. NUMBER OF SPOUSES  
837. NUMBER OF CHILDREN  
8

# CONTINUATION SHEET FOR APPLICATION FORMS

- This Continuation Sheet is used in conjunction with Forms CA, PA, SE, SR, TX, and VA only. Indicate which basic form you are continuing in the space in the upper right-hand corner.
- If at all possible, try to fill the information called for into the spaces provided on the basic form.
- If you do not have space enough for all the information you need to give on the basic form, use this continuation sheet and submit it with the basic form.
- If you submit this continuation sheet, clip (do not tape or staple) it to the basic form and fold the two together before submitting them.
- Part A of this sheet is intended to identify the basic application. Part B is a continuation of Space 2. Part C (on the reverse side of this sheet) is for the continuation of Spaces 1, 4, or 6.

DO NOT WRITE ABOVE THIS LINE. FOR COPYRIGHT USE ONLY

## FORM VA /CON

UNITED STATES COPYRIGHT OFFICE

VA 1-266-218

PA PAU SE SEG SEU SR SRU TX TXU VA

EFFECTIVE DATE OF REGISTRATION

APR 30 2004

Month (Day) (Year)

CONTINUATION SHEET RECEIVED

APR 30 2004

Page 3 of 4 pages

**A** Identification of Application 2002 Catalog (334 Pages)

• NAME(S) AND ADDRESS(ES) OF COPYRIGHT CLAIMANT(S): (Give the name and address of at least one copyright claimant as given in Space 4 of the basic form.)

**A** Scionbek Worldwide Lighting, Inc., 61 Industrial Blvd., Plattsburgh, NY 12901

NAME OF AUTHOR ▼ DATES OF BIRTH AND DEATH  
Year Born ▼ Year Died ▼

**d** Burch & Company

Was this contribution to the work a "work made for hire"? AUTHOR'S NATIONALITY OR DOMICILE  
Name of Country

**B** Continuation of Space 2  Yes  No OR { Citizen of ▶ USA  
Domiciled in ▶ USA

NATURE OF AUTHORSHIP Briefly describe nature of material created by this author in which copyright is claimed. ▼  
Text and Compilation

NAME OF AUTHOR ▼ DATES OF BIRTH AND DEATH  
Year Born ▼ Year Died ▼

**e**

Was this contribution to the work a "work made for hire"? AUTHOR'S NATIONALITY OR DOMICILE  
Name of Country

Yes  No OR { Citizen of ▶ \_\_\_\_\_  
Domiciled in ▶ \_\_\_\_\_

NATURE OF AUTHORSHIP Briefly describe nature of material created by this author in which copyright is claimed. ▼

NAME OF AUTHOR ▼ DATES OF BIRTH AND DEATH  
Year Born ▼ Year Died ▼

**f**

Was this contribution to the work a "work made for hire"? AUTHOR'S NATIONALITY OR DOMICILE  
Name of Country

Yes  No OR { Citizen of ▶ \_\_\_\_\_  
Domiciled in ▶ \_\_\_\_\_

NATURE OF AUTHORSHIP Briefly describe nature of material created by this author in which copyright is claimed. ▼

Use the reverse side of this sheet if you need more space for continuation of Spaces 1, 4, or 6 of the basic form.

CONTINUATION OF (Check which):

Space 1    Space 4    Space 6

**C**  
Continuation  
of other  
Spaces

MAIL  
TO

Name  Brett M. Buffum  
Heslin Rothenberg Farley + Mesiti  
Number/Street/Apt  
5 Columbia Circle  
City/State/Zip  Albany, NY 12203

Certificate  
will be  
mailed in  
window  
envelope

I am the attorney for the above party  
in whose name this certificate  
is issued to Attorney of Counsel  
  
 I am the attorney for the above party  
in whose name this certificate  
is issued to Attorney of Counsel  
  
FEDERAL BUREAU OF INVESTIGATION  
U.S. DEPARTMENT OF JUSTICE  
Washington, D.C. 20535-0001

**D**  
Address for  
return of  
certificate

**EXHIBIT I**

# THE HOUSE OF CHANDELIER & CRYSTAL



3210 FONDREN ROAD  
HOUSTON TEXAS 77063  
Tel: 713-266-9393 Fax: 713-266-9373

September 12, 2006

Mr. Jim Krupp  
KTR Associates, L.L.C.  
75 Searingtown Road  
Searingtown, NY 11507

Dear Mr. Krupp,

I hope all is well in your world.

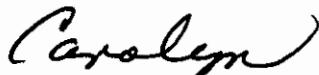
As I promised, I am forwarding our showroom catalog displaying a small selection of what we have to offer in addition to the web site you browsed. Also included is a crystal comparison sheet.

The House of Chandeliers is the distributor of Egyptian crystal chandeliers and lighting in the United States. Since 1961, Asfour Company has created an enchanting blend between ancient craftsmanship and the most sophisticated technology, executing any size chandelier. We are not only classified as a high quality crystal producer, but also as an international leader in this industry. Our products are truly works of art and the crystal carries a lifetime warranty.

We are members of the American Lighting Association, industry partner of the American Society of Interior Designers and a member of the Better Business Bureau.

I will follow-up to determine you and your partners interest or please feel free to contact me at the telephone number above or via e-mail, [cbbhoc@sbcglobal.net](mailto:cbbhoc@sbcglobal.net). Take care.

Sincerely,

  
Carolyn Bennett

*Parlour  
Boudoir  
Contessa  
Virtuosa*

EXHIBIT J

**ORIGINAL  
COLOR  
EXHIBITS  
IN  
CLERK'S  
FILE**





## In Search of Excellence?

Examine Our Factory's  
Exquisite Line of Chandeliers

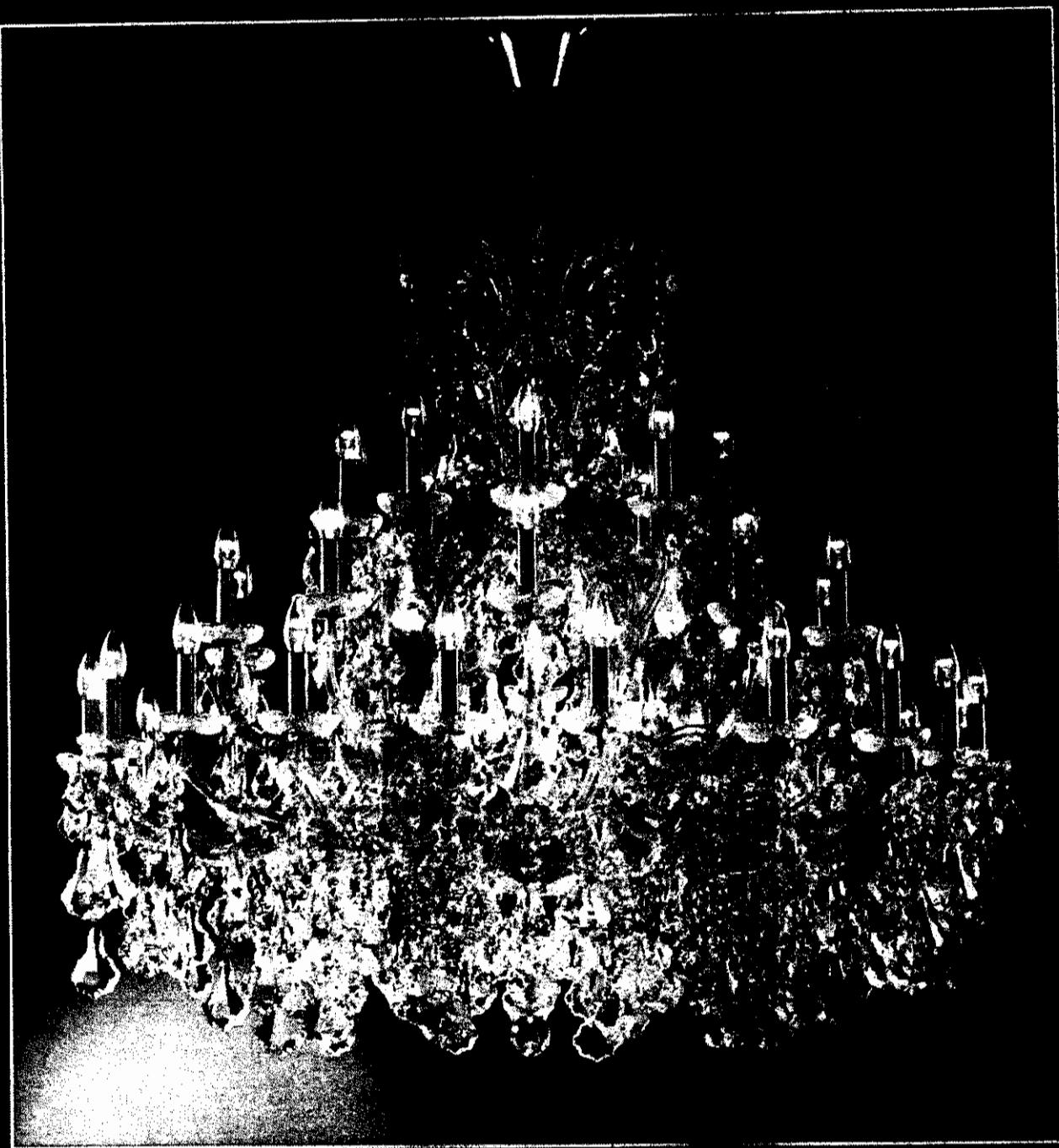
Elegance & Radiance at  
Incredible Price

Permitting Ceiling Mounts,  
Floor Standing Lamps & Wall  
Sconces

Custom Designs

30%-Lead, Diamond-Cut,  
Multifaceted Crystal Trims  
Our Elegant Frames

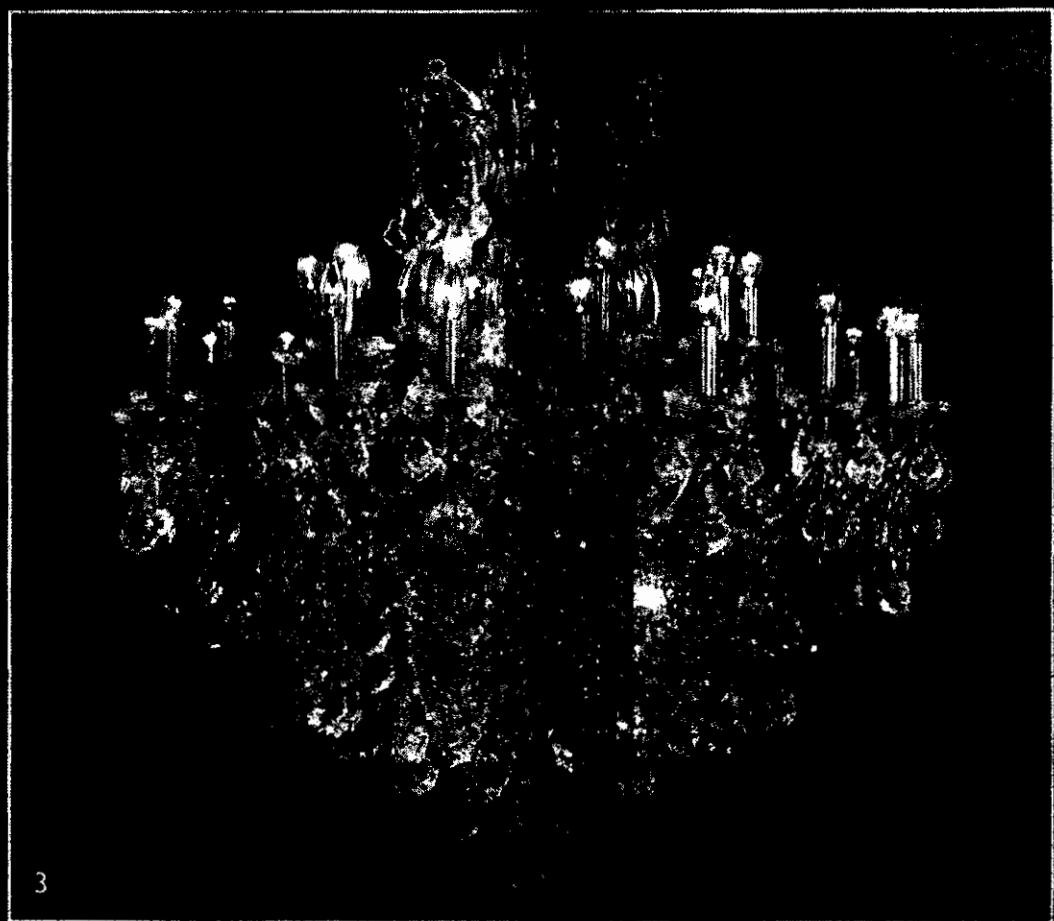
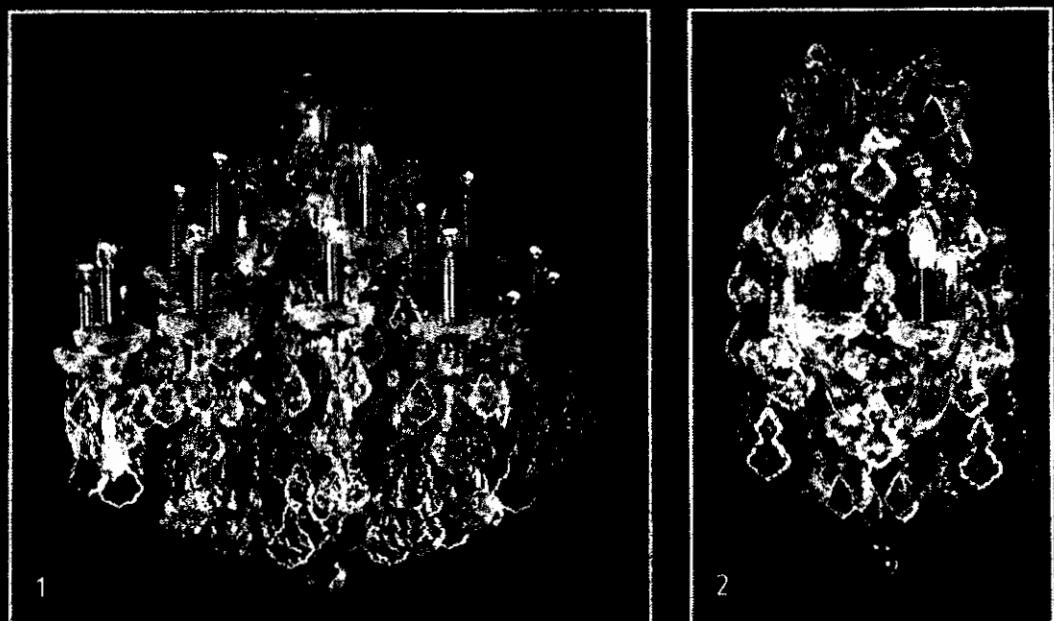
Proclaim the World's  
Finest



NO.	Model No.	D	H	W	L
11	HC 1000-401	55	40	100	100

R S I O C B N C R A I

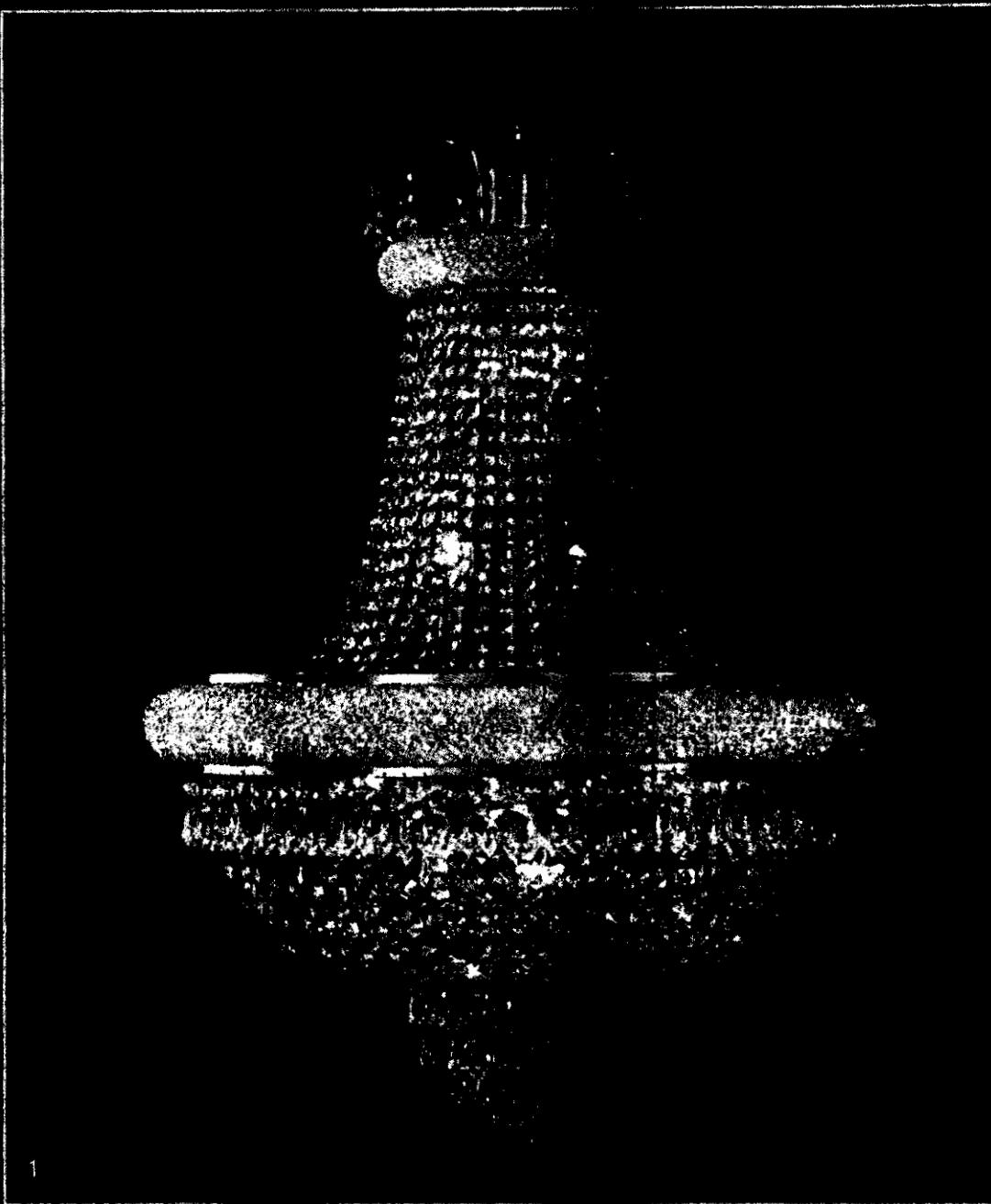




Model No.	H	L
HC 3013/18-1	26	19
HC 3019/5	26	5
HC 1503/30-1	47	31



N S D T R P T S F A

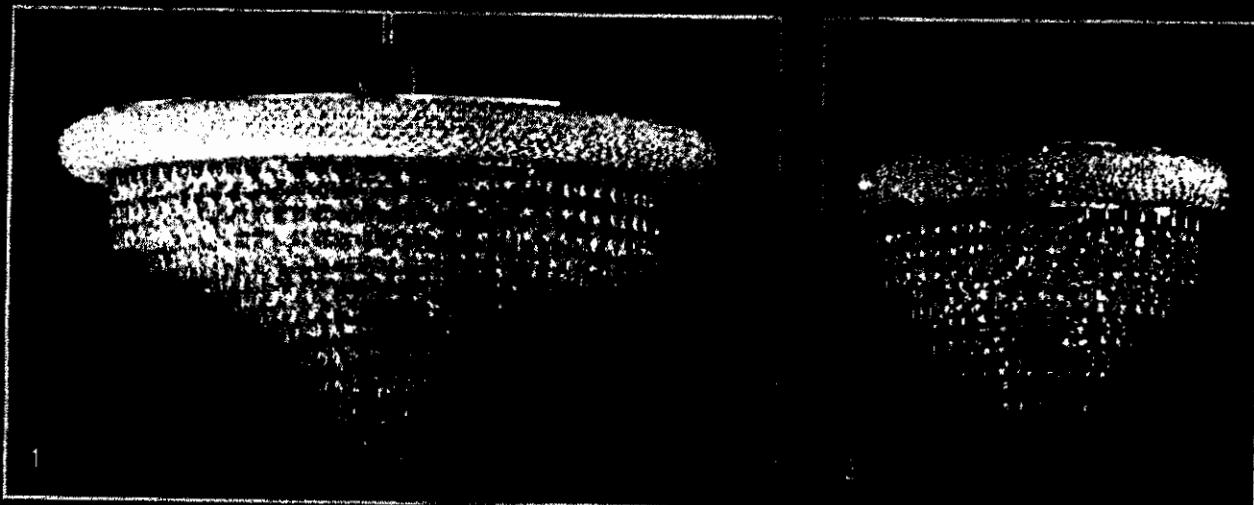


	Model No.	1	11	1
	4080745	17	18	7
	4080755	12	14	12
	4080765	10	10	13
	4080775	15	12	16

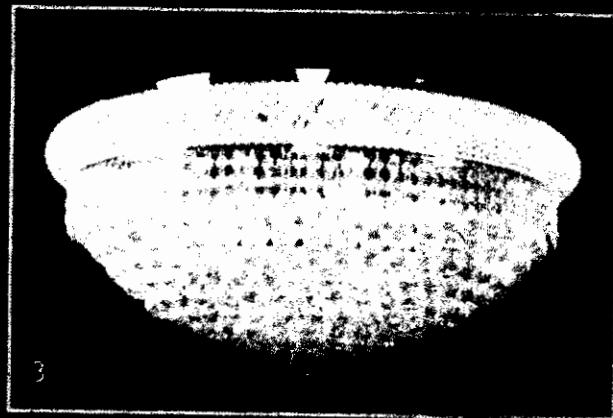


4080745 4080755 4080765 4080775

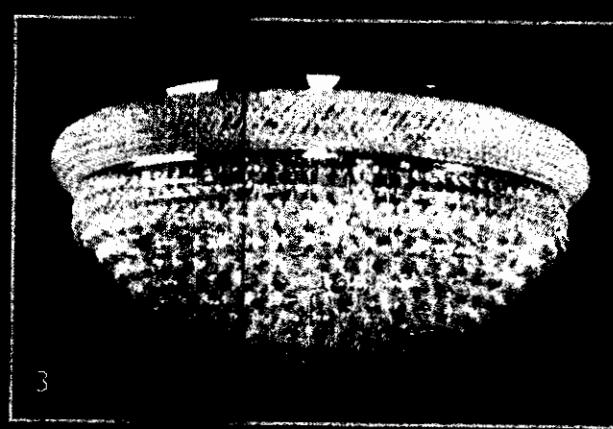
4080745 4080755 4080765 4080775



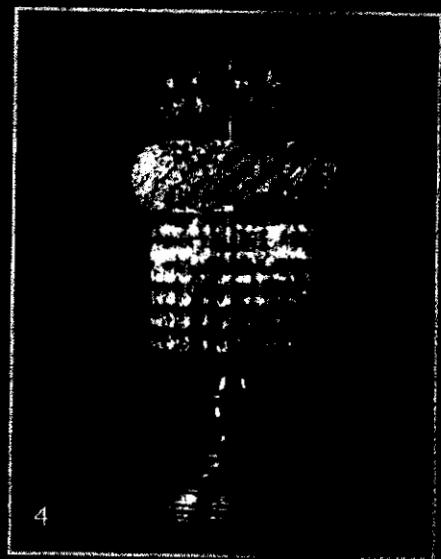
1



3



3



4

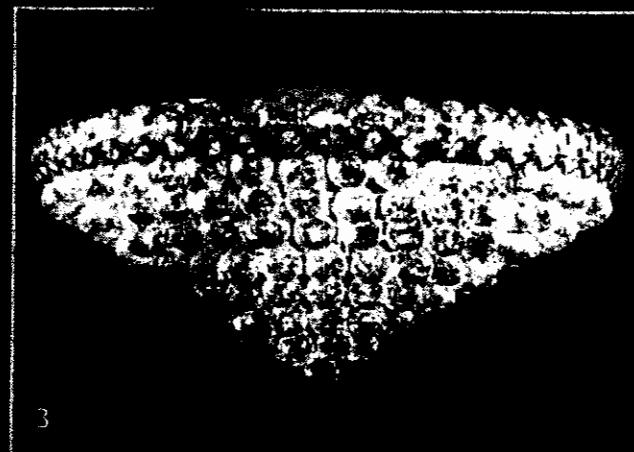
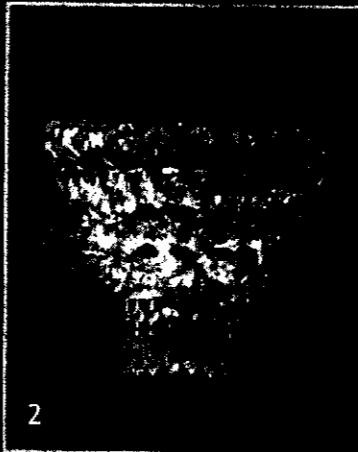
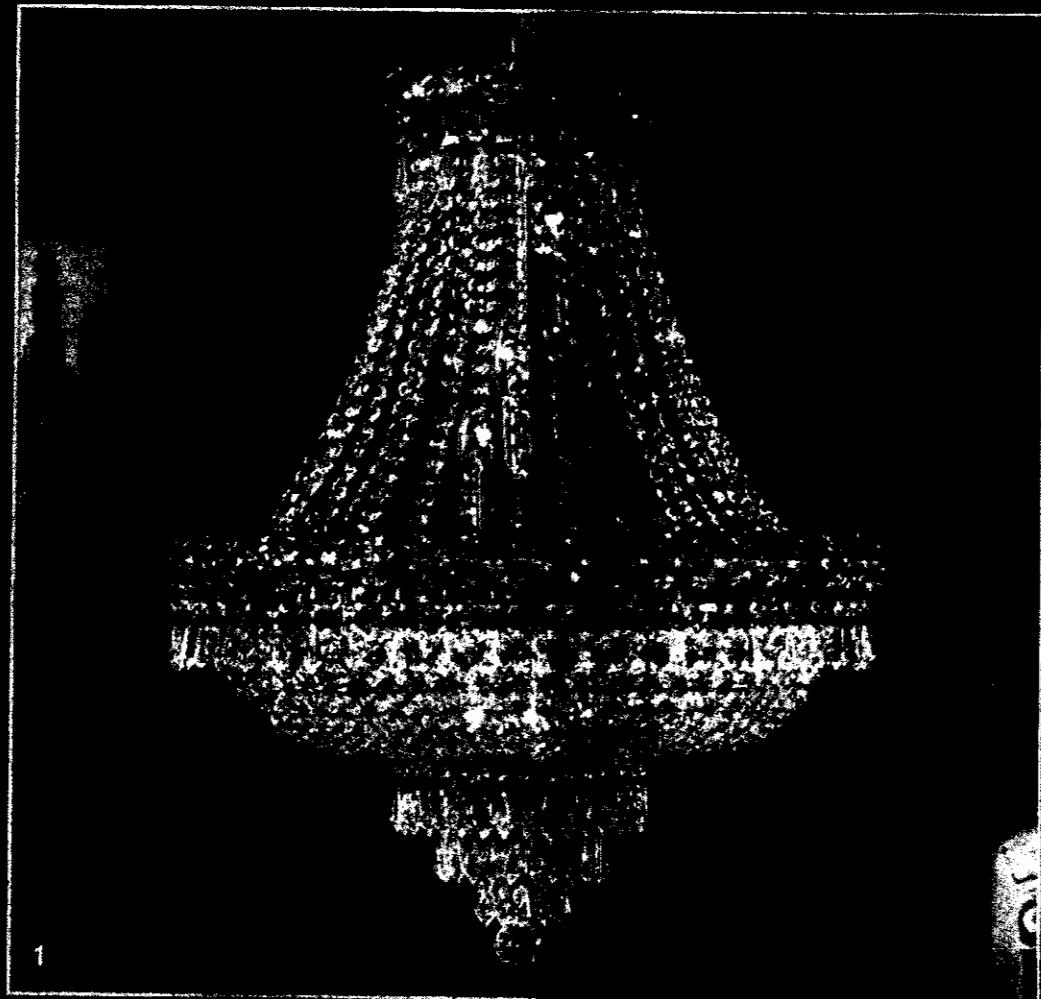


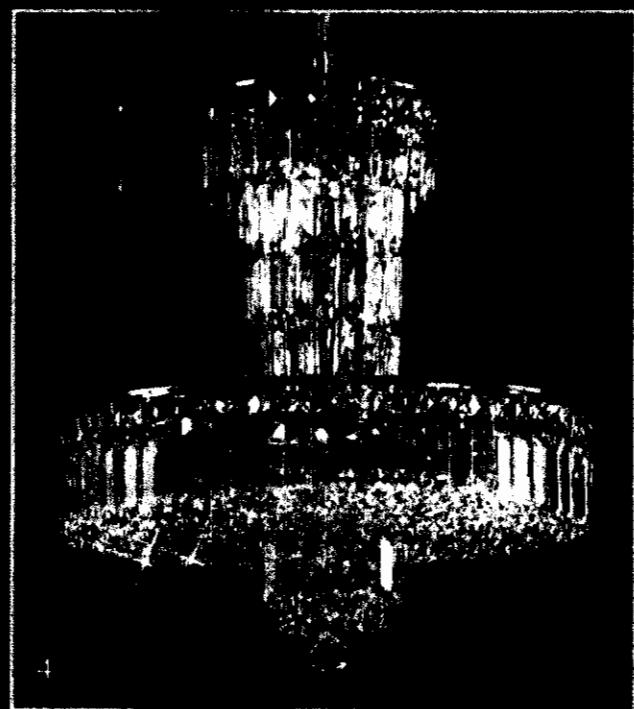
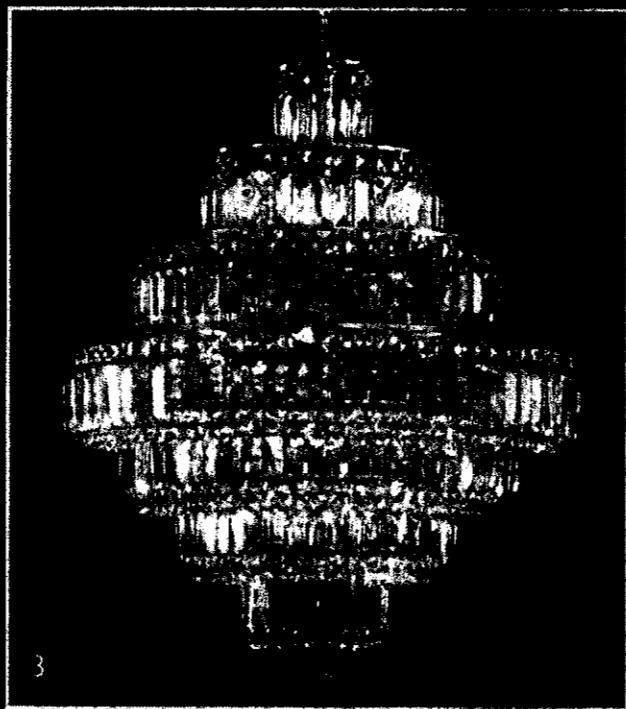
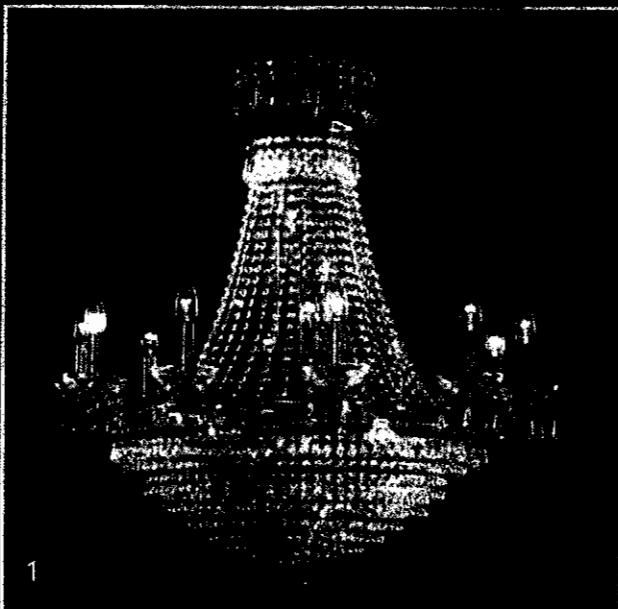
5

No.	Model No.	D
1	HC 4256/40	16
1	HC 4256/50	20
1	HC 4256/60	24
1	HC 4256/70	28

No.	Model No.	D
2	HC	16
3	HC	20
4	HC	24
5	HC	28



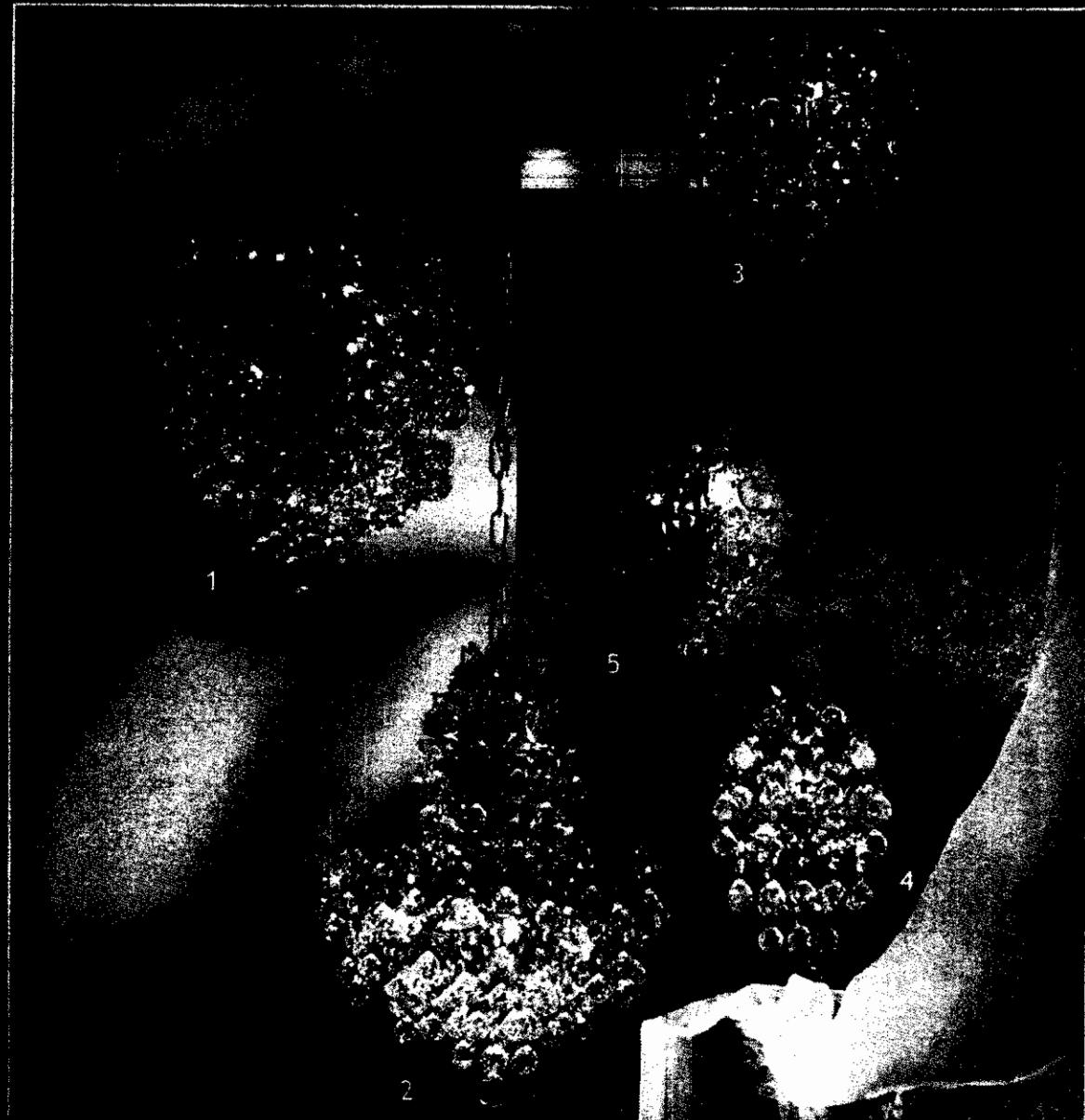




No.	Model No.	D	H	L	No.	Model No.	D	H	L
1	HC 7538/80	31	57	24	3	HC 7538/40	39	51	37
2	HC 7538/40	16	13	8	4	HC 7538/50	19	19	38
2	HC 7538/50	20	13	15	4	HC 7538/60	21	21	39
2	HC 7538/60	24	13	13	4	HC 7538/80	23	28	40
2	HC 7538/80	31	57	24	4	HC 2000/40	16	17	17
3	HC 2000/40	16	13	9	4	HC 2000/50	19	19	19
3	HC 2000/50	20	13	12	4	HC 2000/60	21	22	21
3	HC 2000/60	24	13	13	4	HC 2000/70	23	28	23
3	HC 2000/70	28	13	30	4	HC 2000/80	27	31	26
3	HC 2000/80	31	13	32					

S S T T U U C R S T T S S





File	Marked Area	D	L	Code No.	D	H	L
1	HC 832 15	1	4	832 1780	31	16	12
1	HC 832 14	14	4	832 30	12	12	2
1	HC 832 16	23	6	832 40	16	14	3
1	HC 832 18	23	3	832 50	20	16	5
1	HC 832 19	29	12	832 60	74	18	6
1	HC 832 20	49	16	832 70	11	21	9
1	HC 832 21	22	4	832 80	8	15	1
2	HC 832 150	24	5	831 76	11	13	2
2	HC 832 160	29	2				

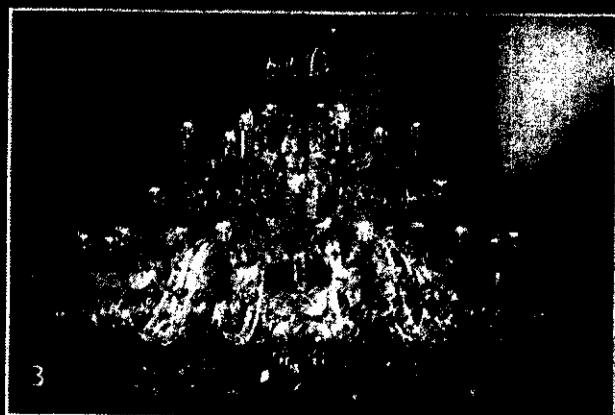




1



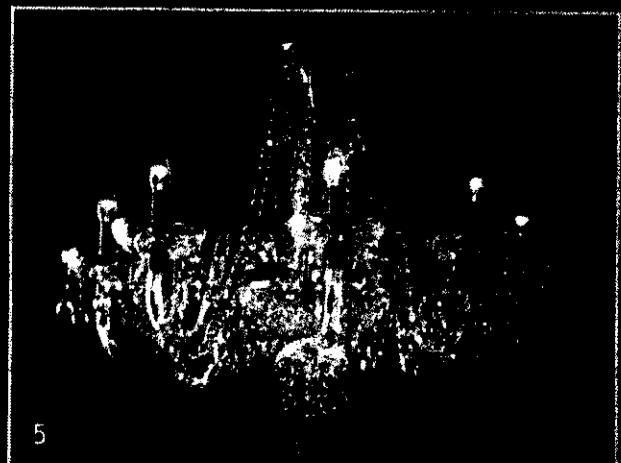
2



3



4



5



6

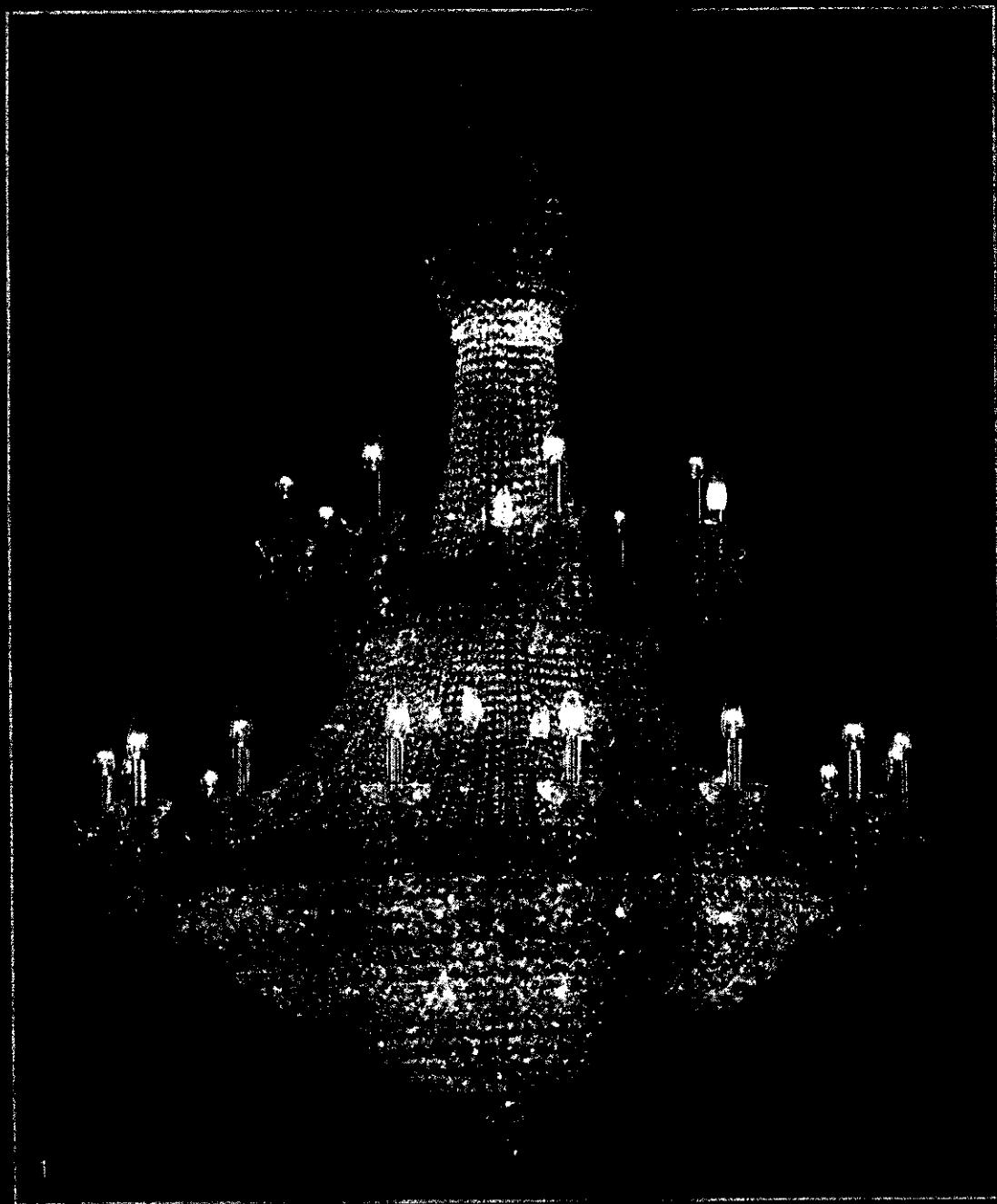
No.	Model No.	D	H
1	HC 155/25	41	25
1	HC 155/15	31	15
2	HC 155/6	30	6
2	HC 155/8	30	8
2	HC 155/10	30	10
2	HC 155/12	32	12
3	HC 77/24	37	24
3	HC 77/36	47	36

No.	Ac	D	H
4	HC	31	15
4	HC	31	15
4	HC	31	15
5	HC	31	15
5	HC	31	15
5	HC	31	15
6	HC	43	37
6	Fy	43	37

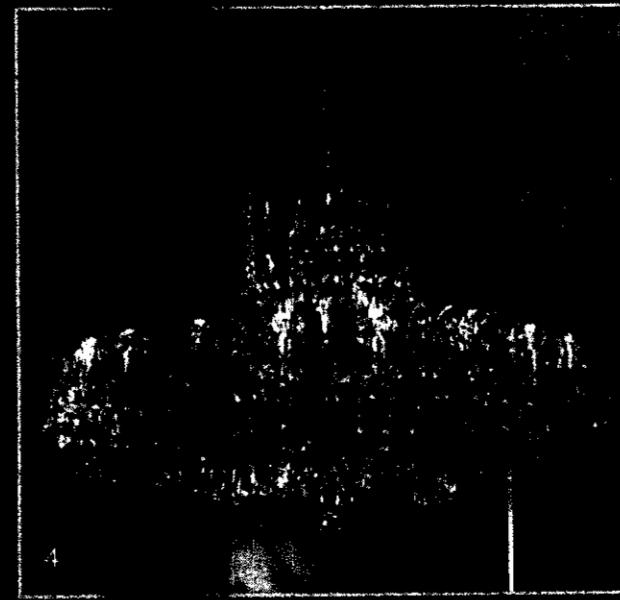
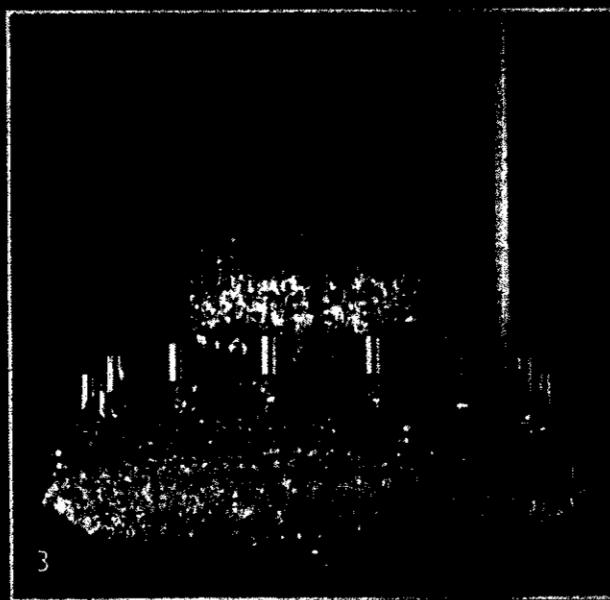
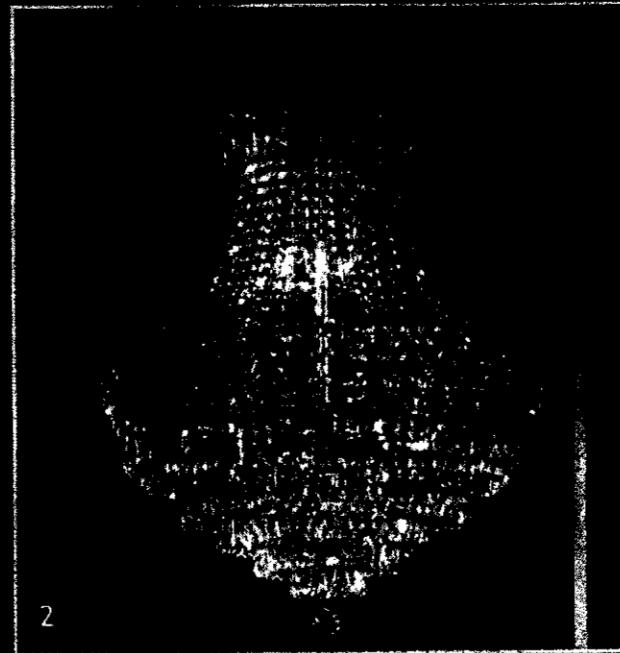
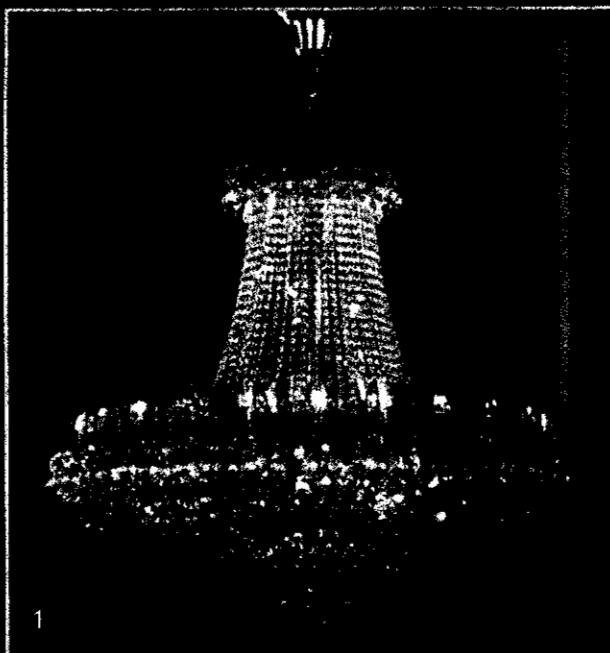
8 1 0 0

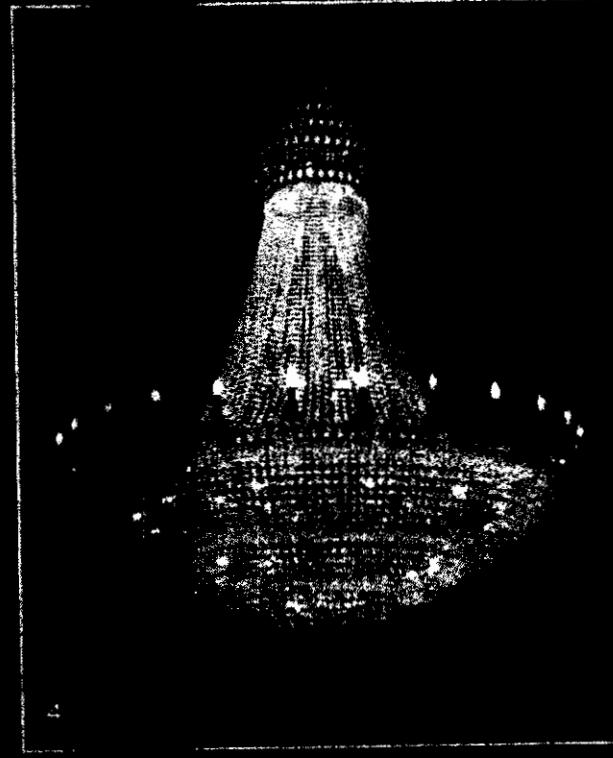
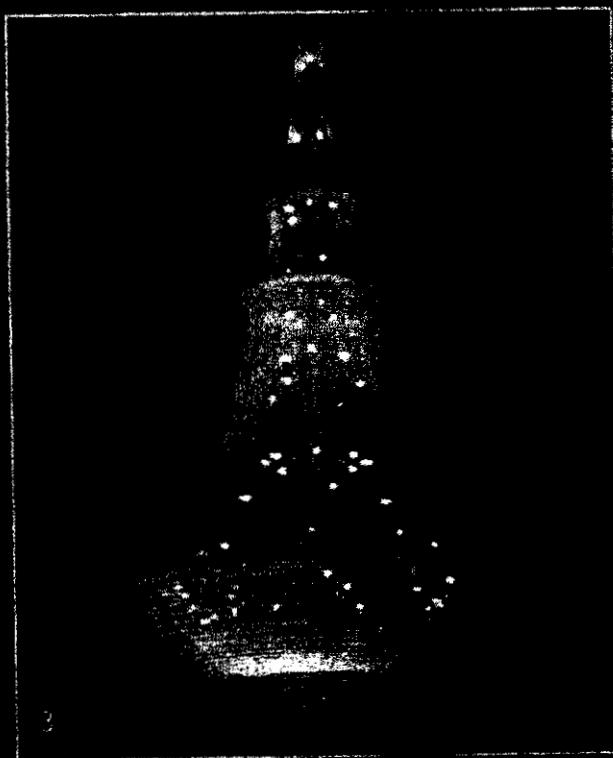
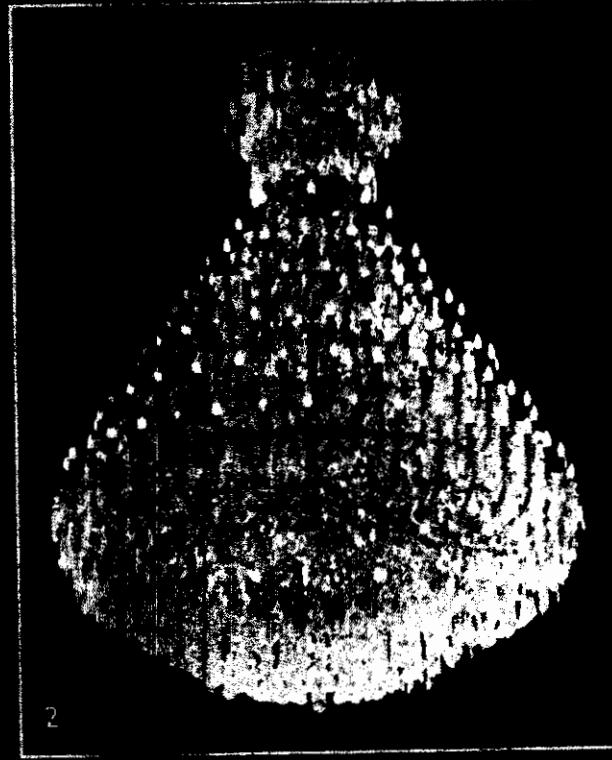
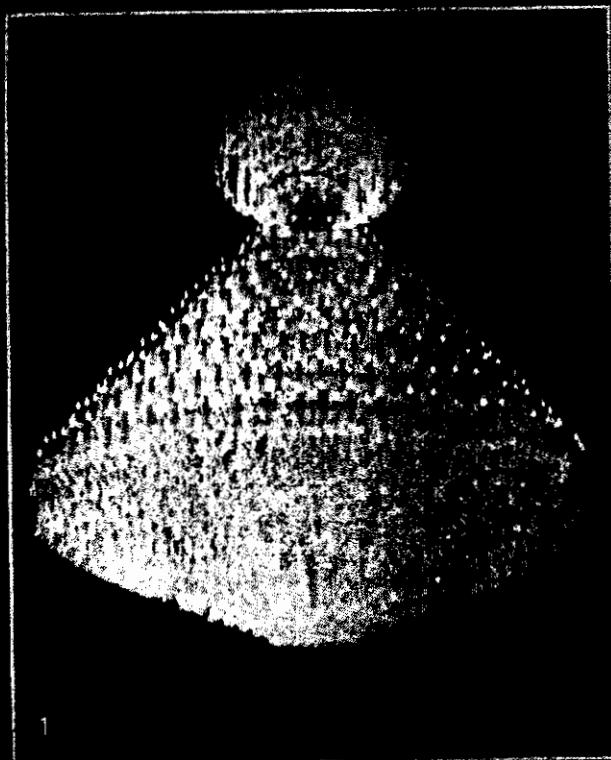
C R

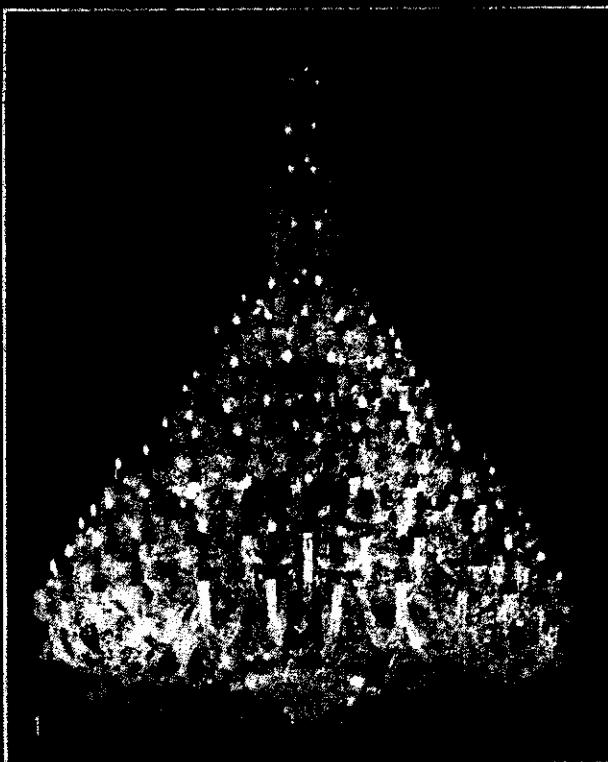
9



10	10/1/100	0	1
11	10/11/180	61	16
12	10/12/98	37	30
13	10/14/135	53	43
14	10/15/200	79	66
15	10/17/300	110	130







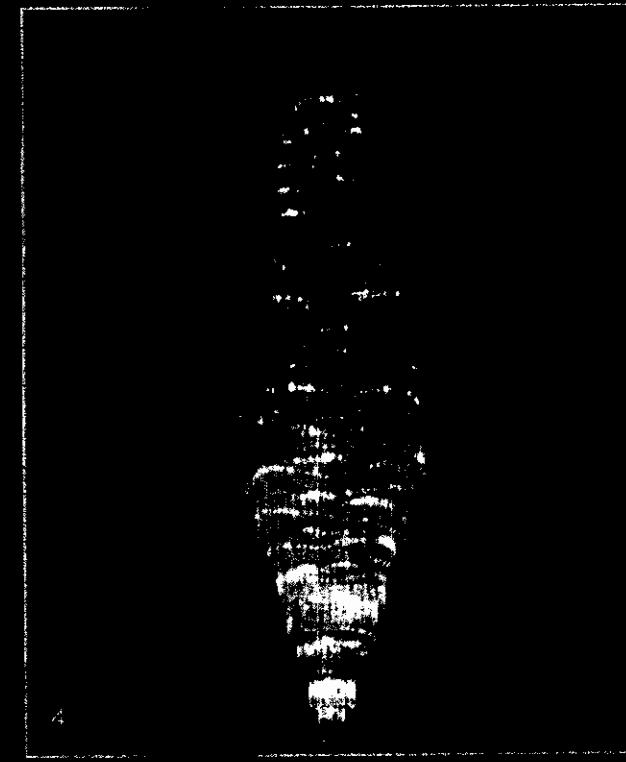
1



2



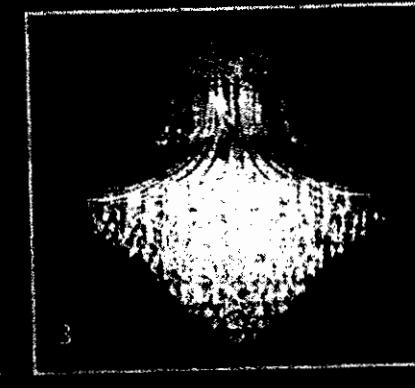
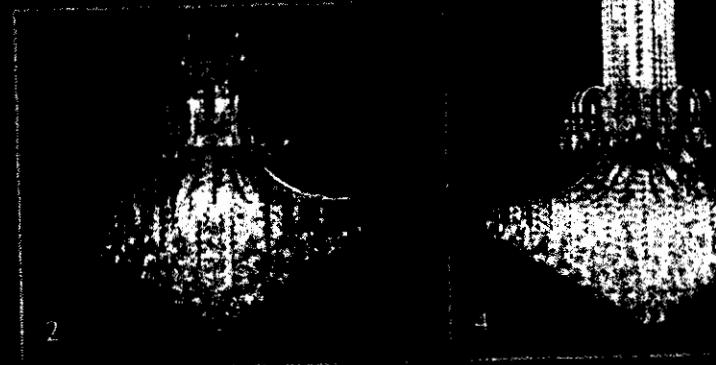
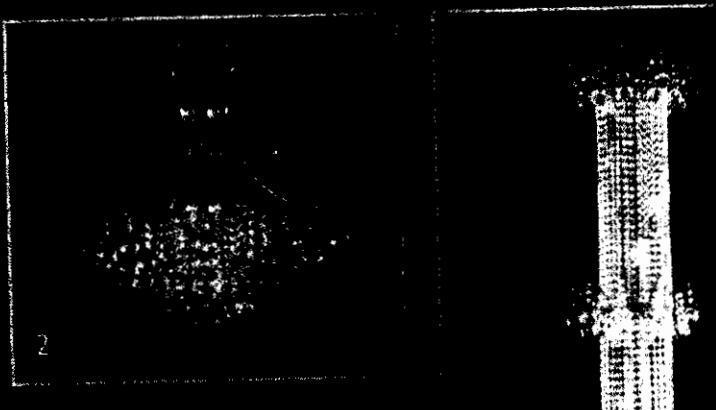
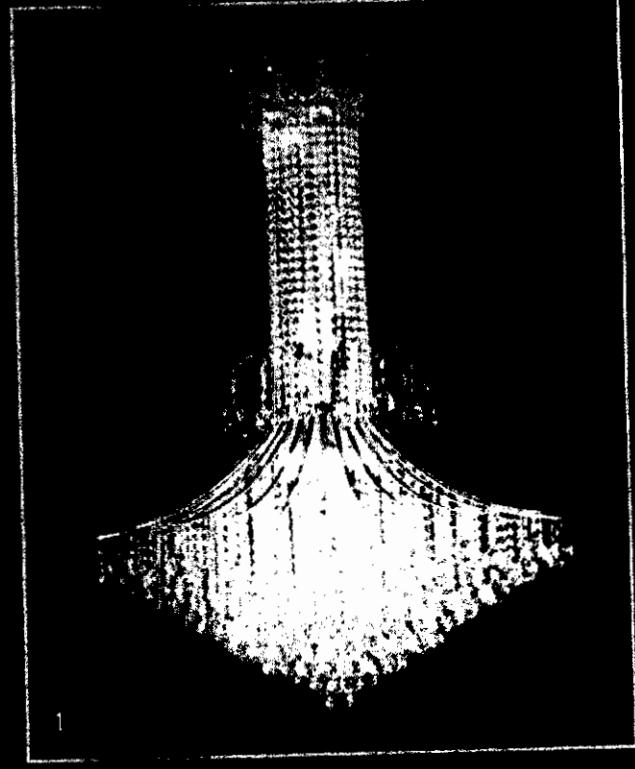
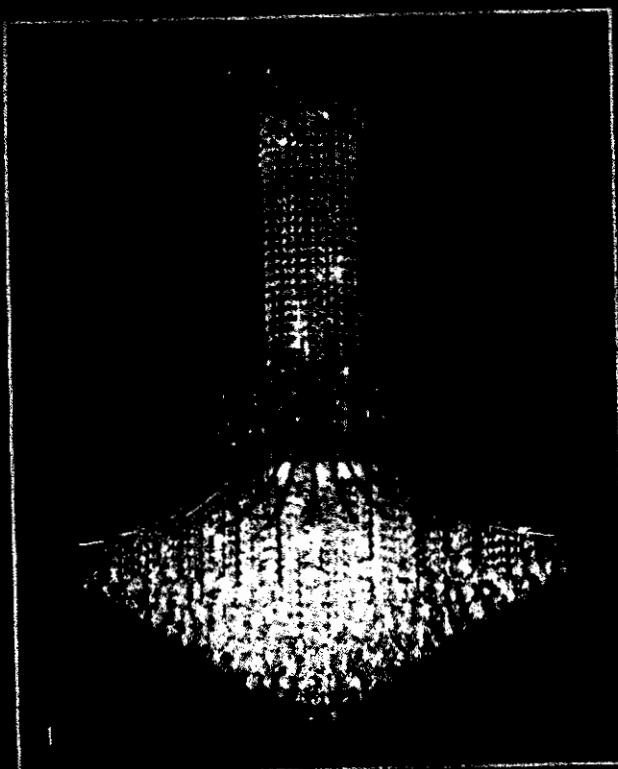
3

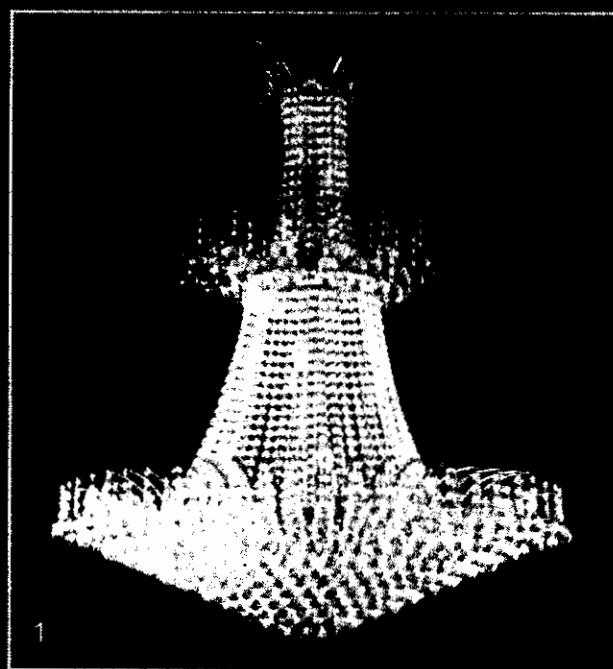


4

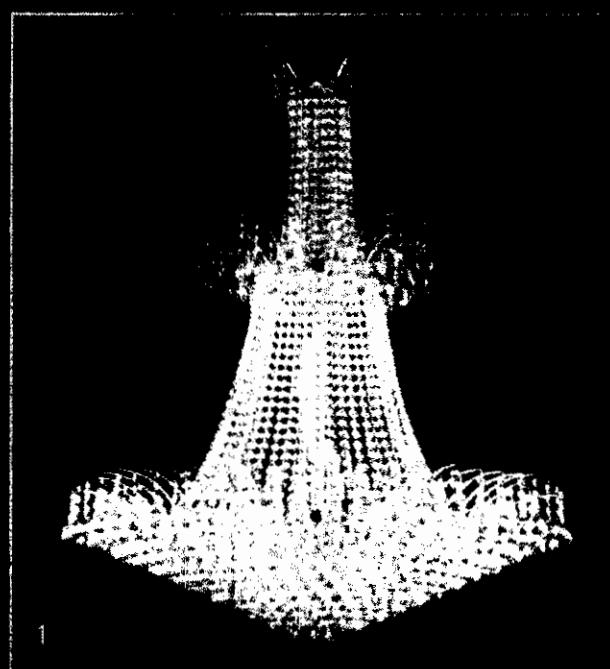
No. No. 1  
1 HC 127450  
2 HC 127451

No. No. 3  
3 HC 127452  
4 HC 127453

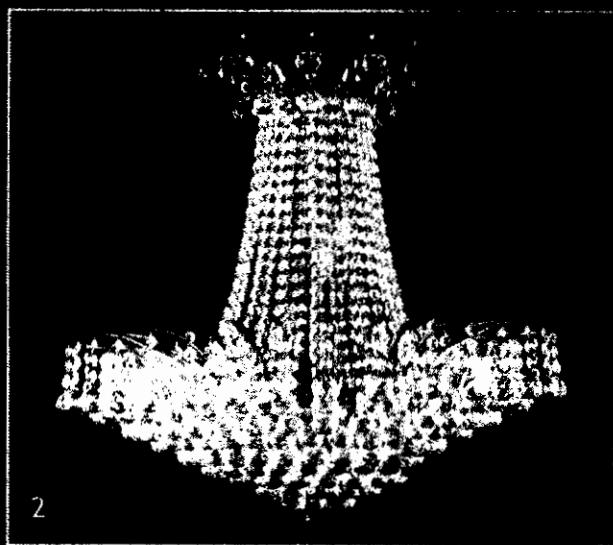




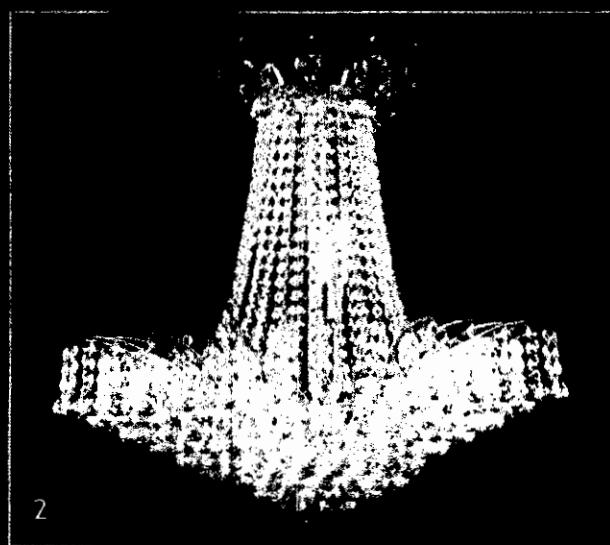
1



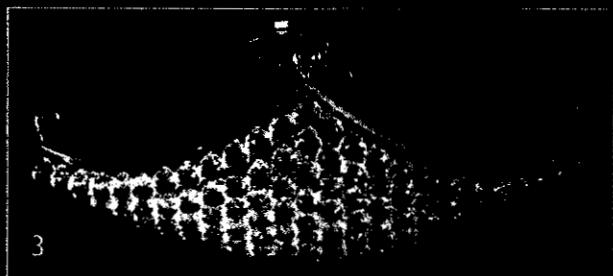
1



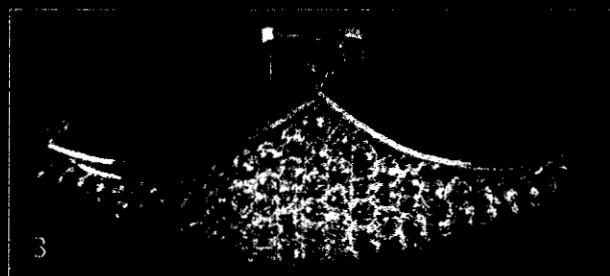
2



2



3



3

No. Model No.

D

W

L

1 HC 18037

31

23

2 HC 18035

21

9

2 HC 18035

24

12

2 HC 18035

29

16

No. Model No.

D

W

L

3 HC 18037

35.27

17

3 HC 18035

34x34

11

3 HC 18035

36x24

11

Custom

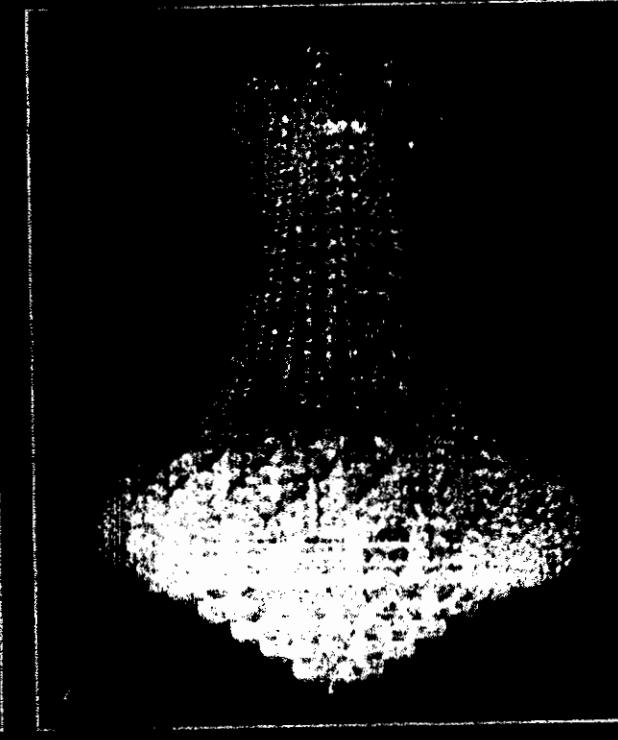
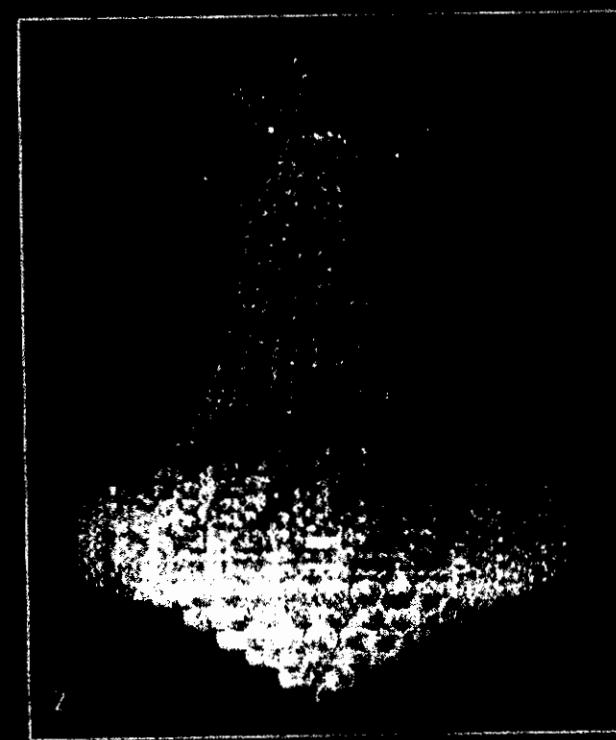
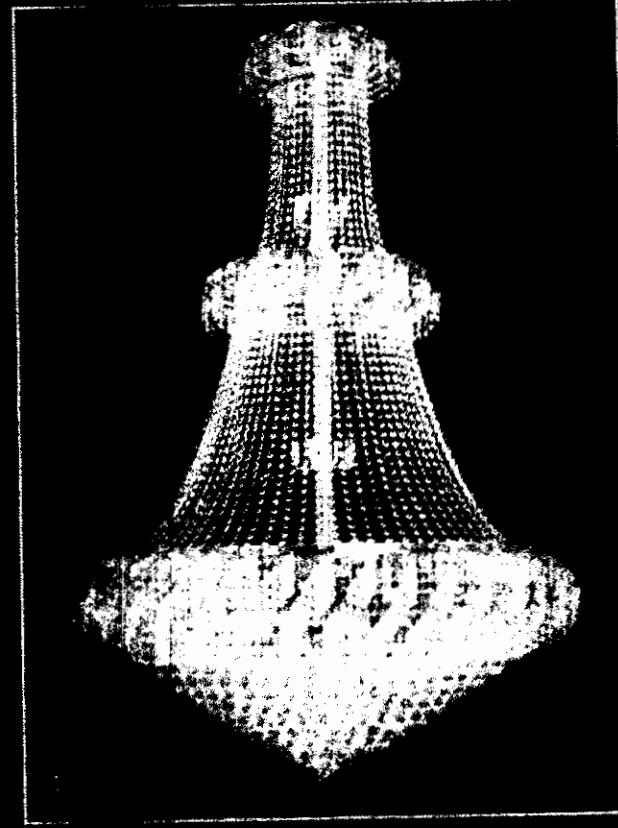
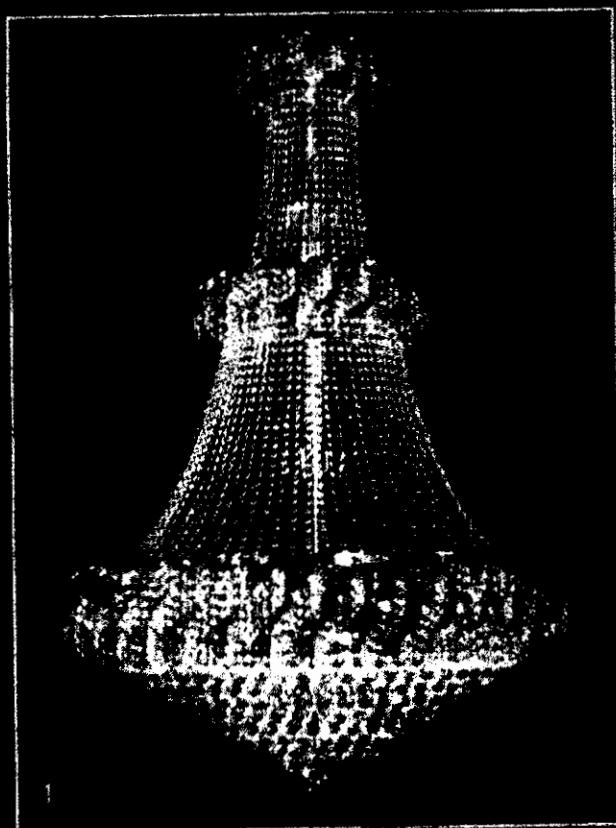
available

XS S M L XL

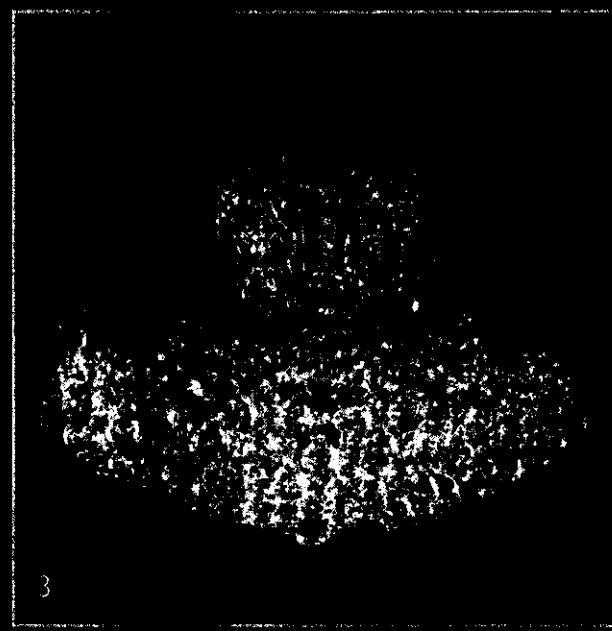
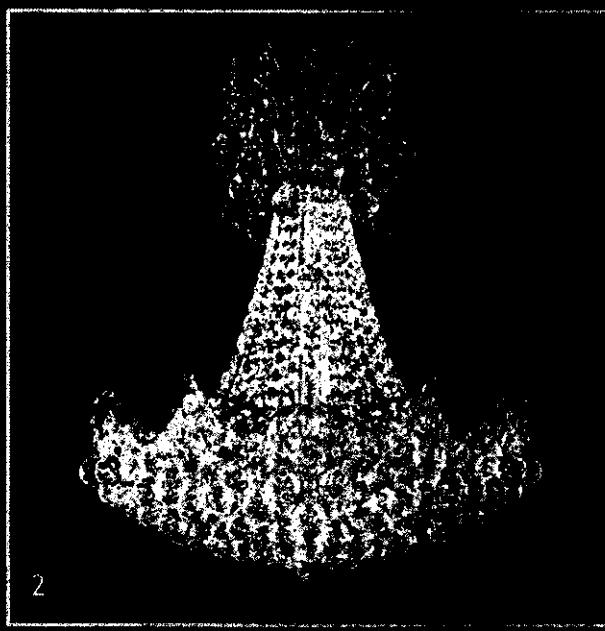
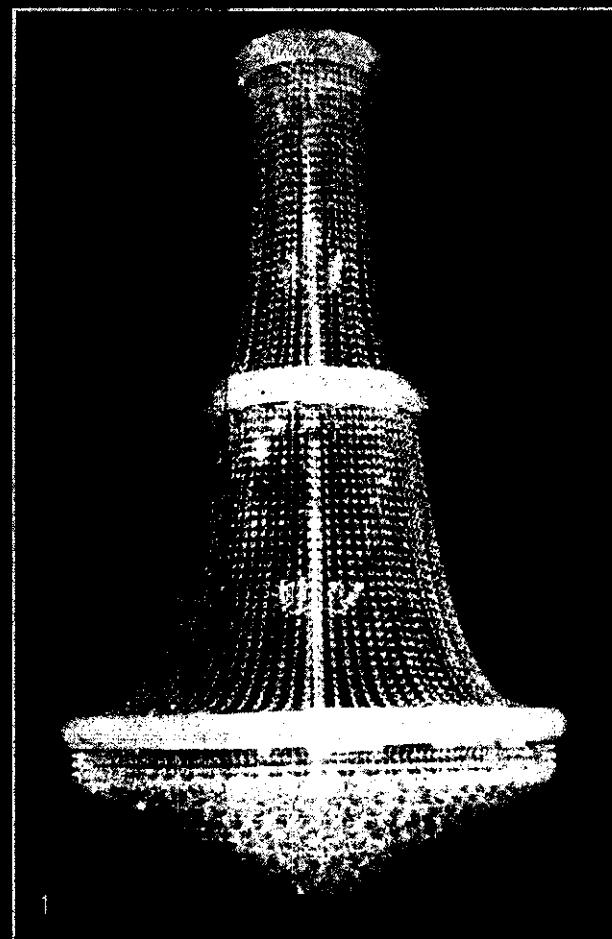
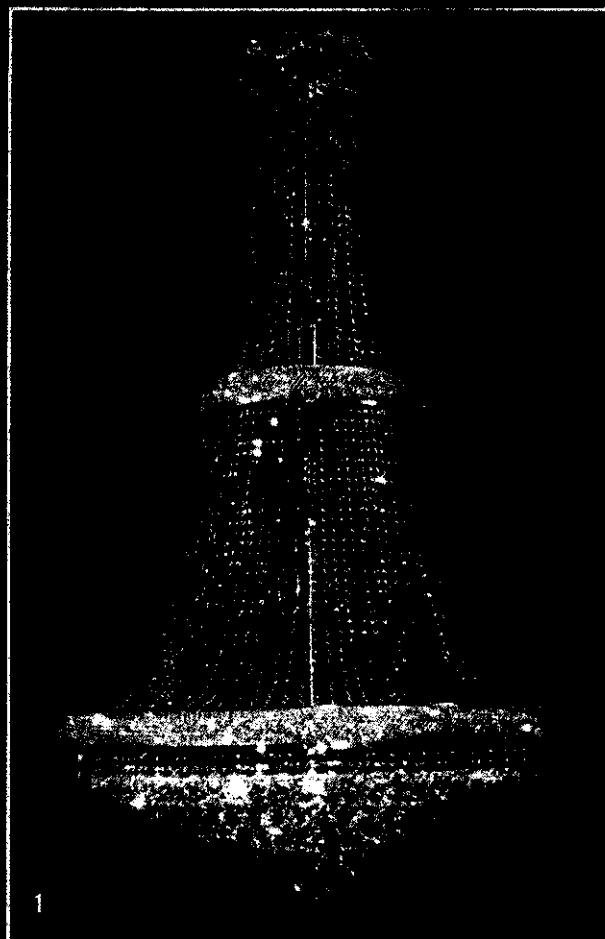
C R

S T A Y L E





Ch. No. and Date	11	12	13	14	15	16	17
1. 11/06/01/2006	66	32	12	176	70	52	15
2. 11/06/01/2006	66	32	12	126	70	56	22
3. 11/06/01/2006	26	11	10	126	80	42	32



No. Model No.

1 HC 11800

1 HC 11800

D

36

42

No. Model No.

2 HC 11800

32

37

No. Model No.

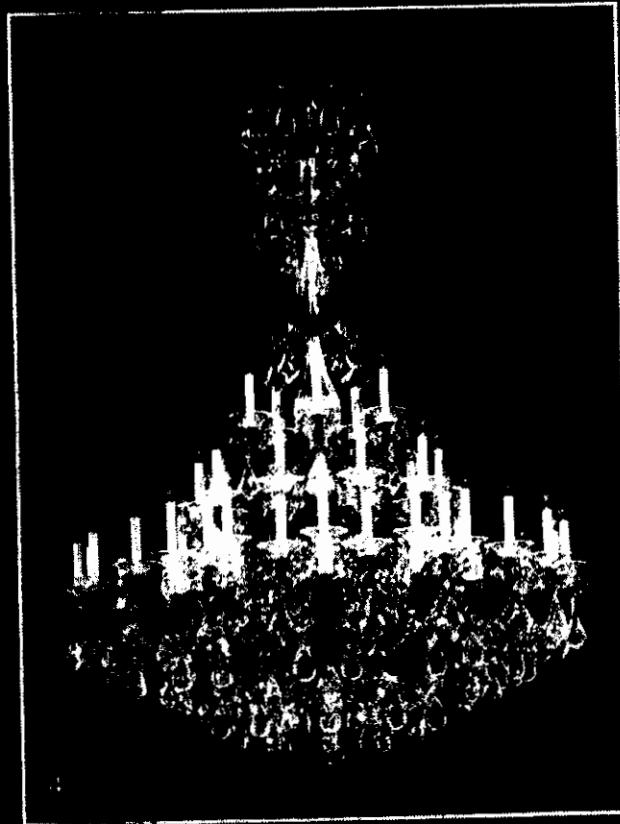
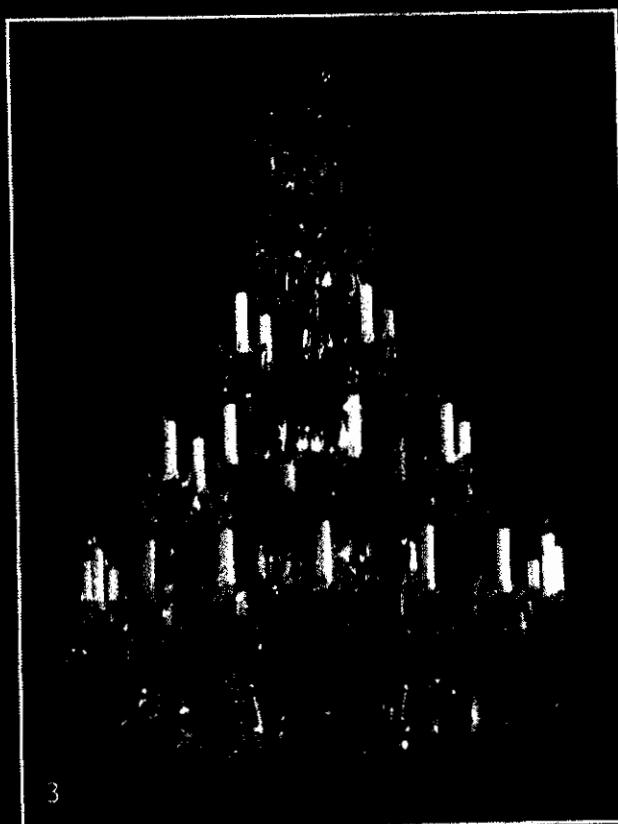
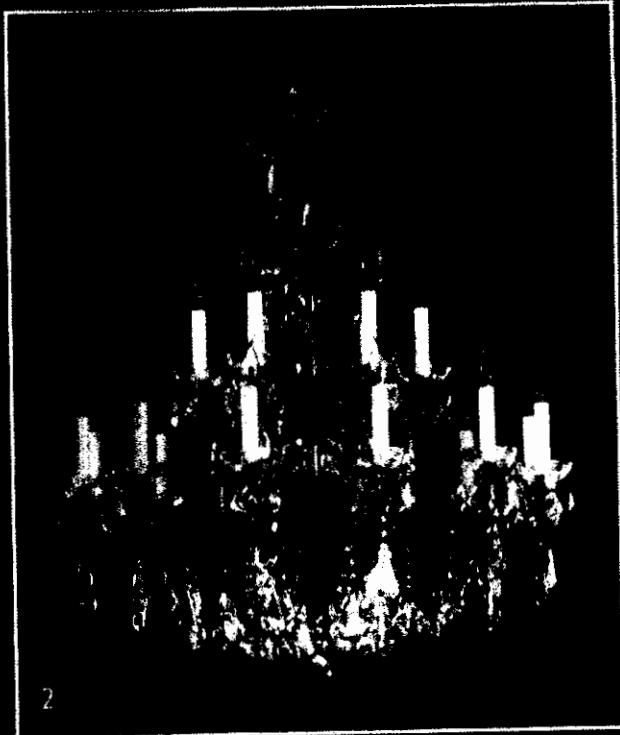
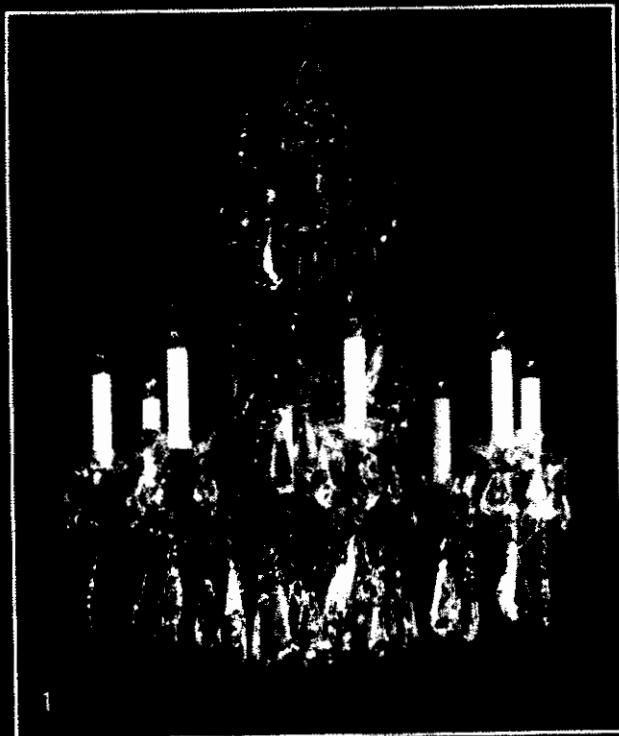
3 HC 11800

38

44

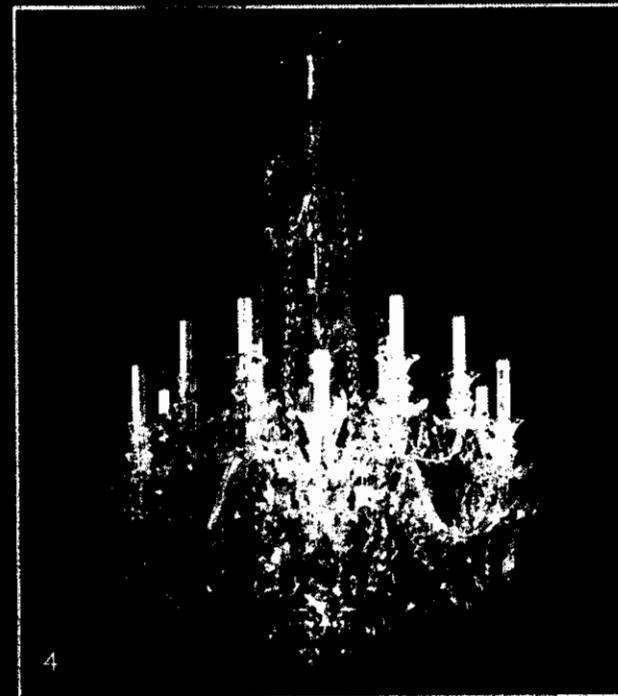
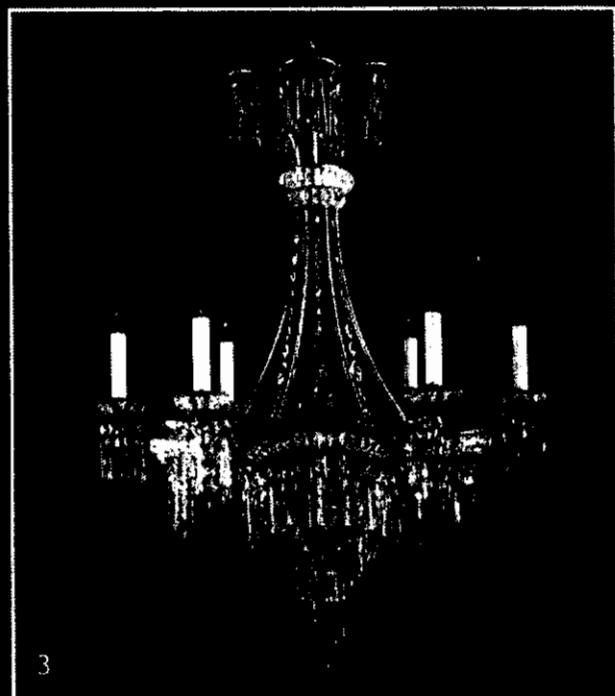
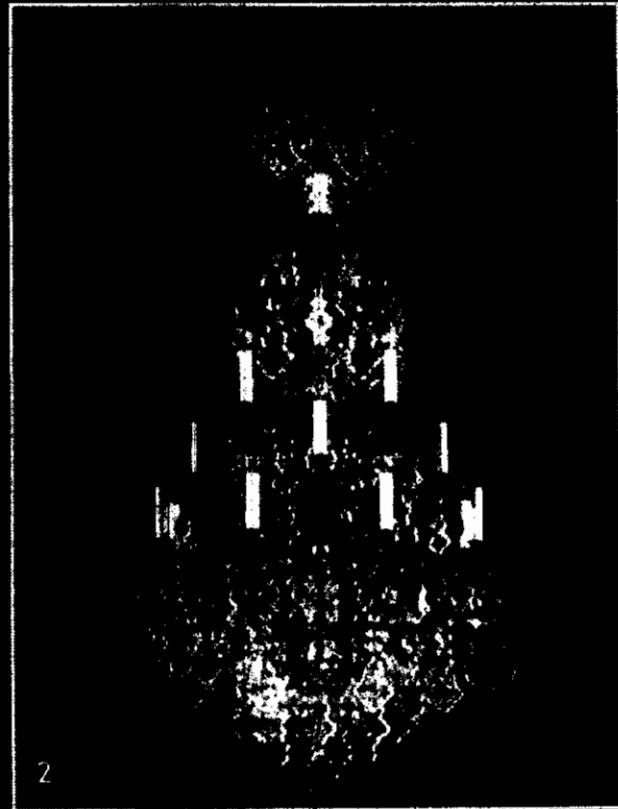
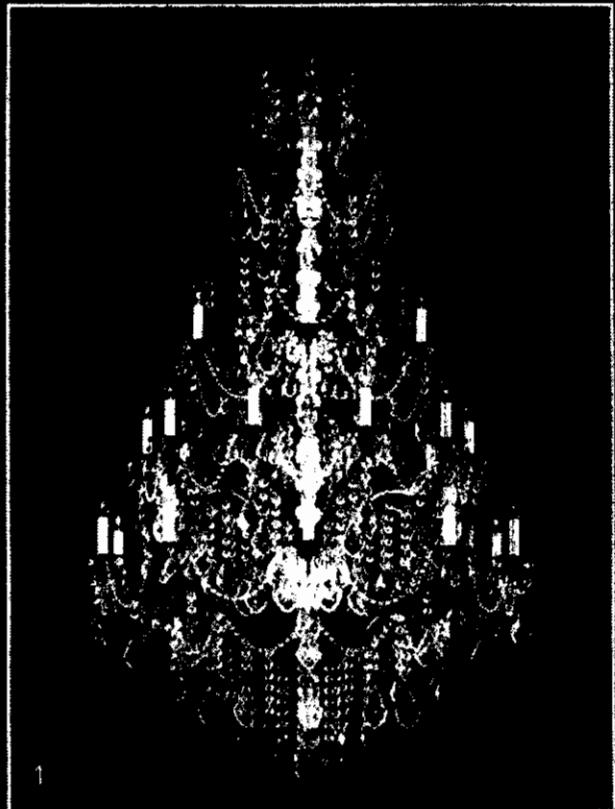
AMERICAN BELL COMPANY, NEW YORK, N.Y.





No.	Model No.	D	H	L
1	HC 82131	25	34	8
2	HC 82131	28	46	15

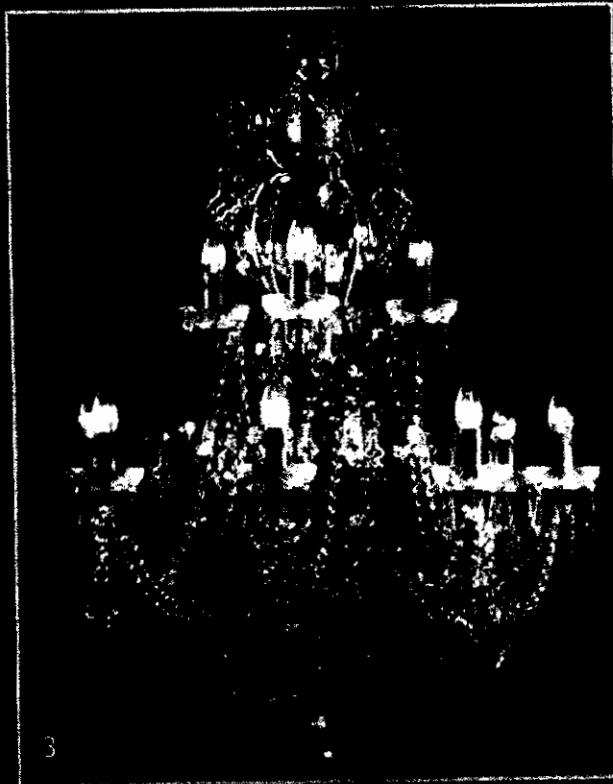
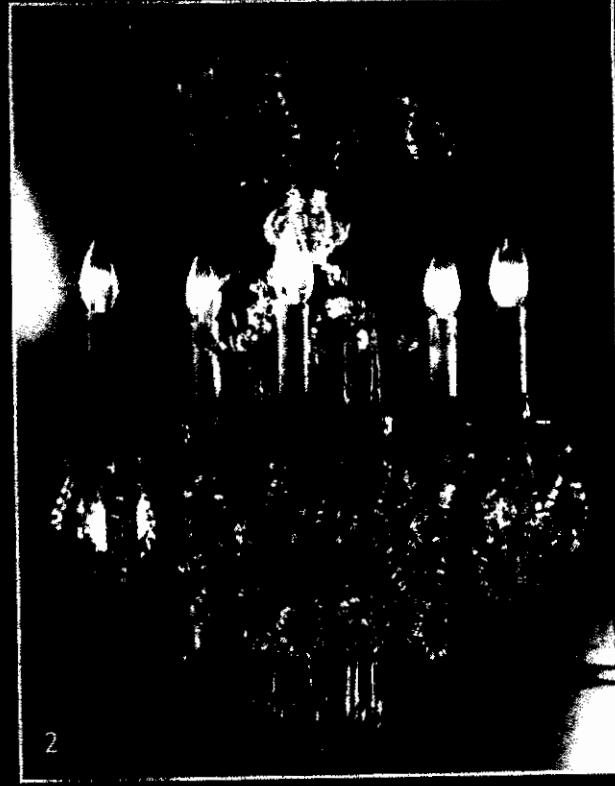
No.	Model No.	D	H	L
3	HC 82131	36	52	25
4	HC 82131	50	72	45



No.	Model No.	D	H	L
1	HC 82127 A	32	60	15
1*	HC 82127 A	40	64	25
2*	HC 82127	28	50	17
2	HC 82127	36	75	25

No.	Model No.	D	H	L
3*	HC 82127	26	36	6
4*	HC 82127	30	44	12
4	HC 82127	34	46	20

N S F O T C R S T X T



14. Plaintiff's Photo  
1. HC 2 253  
2. HC 23261

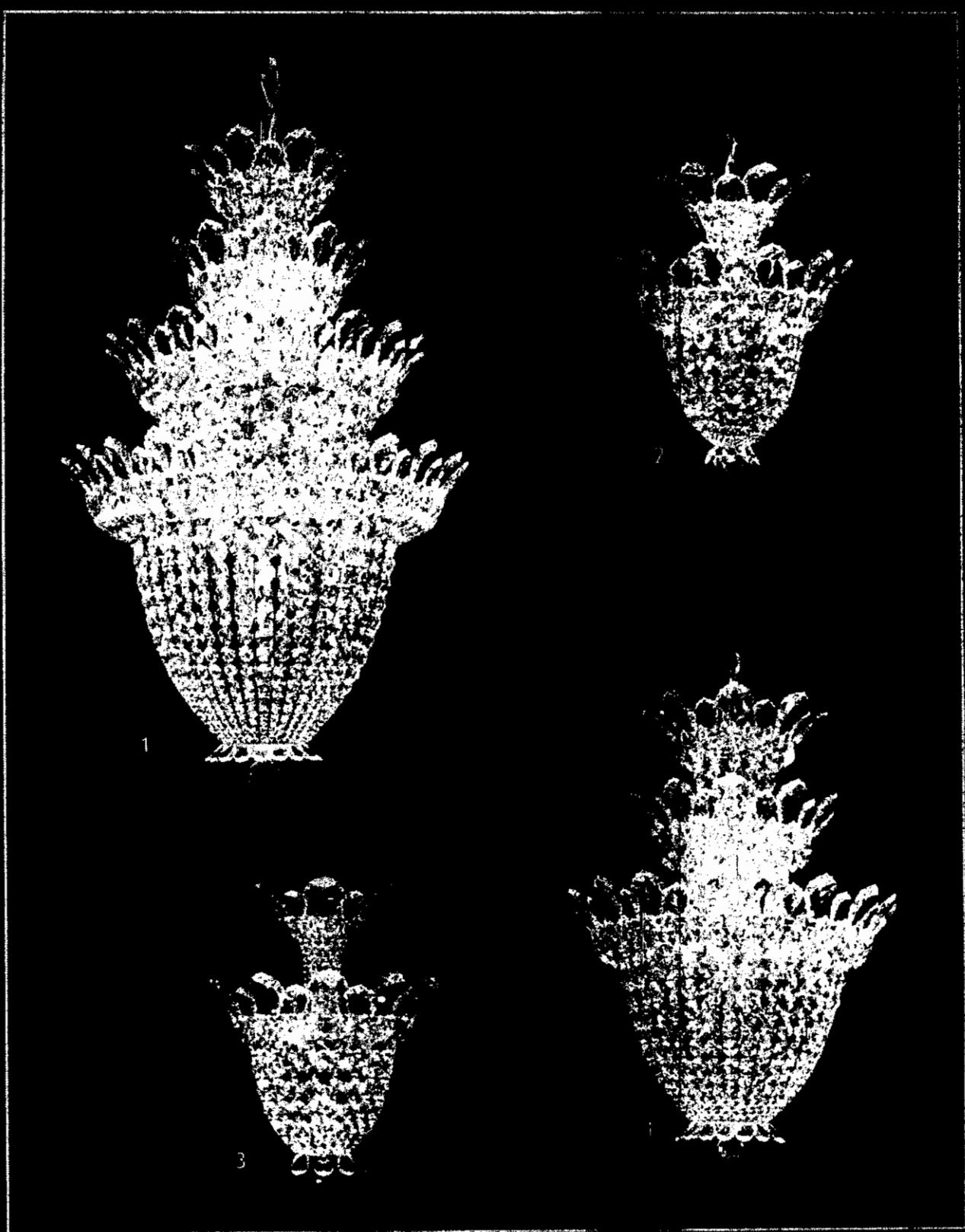
D 13  
50 20  
26 5

et No. D H L  
13256 31 42 12  
23254 60 72 73



20

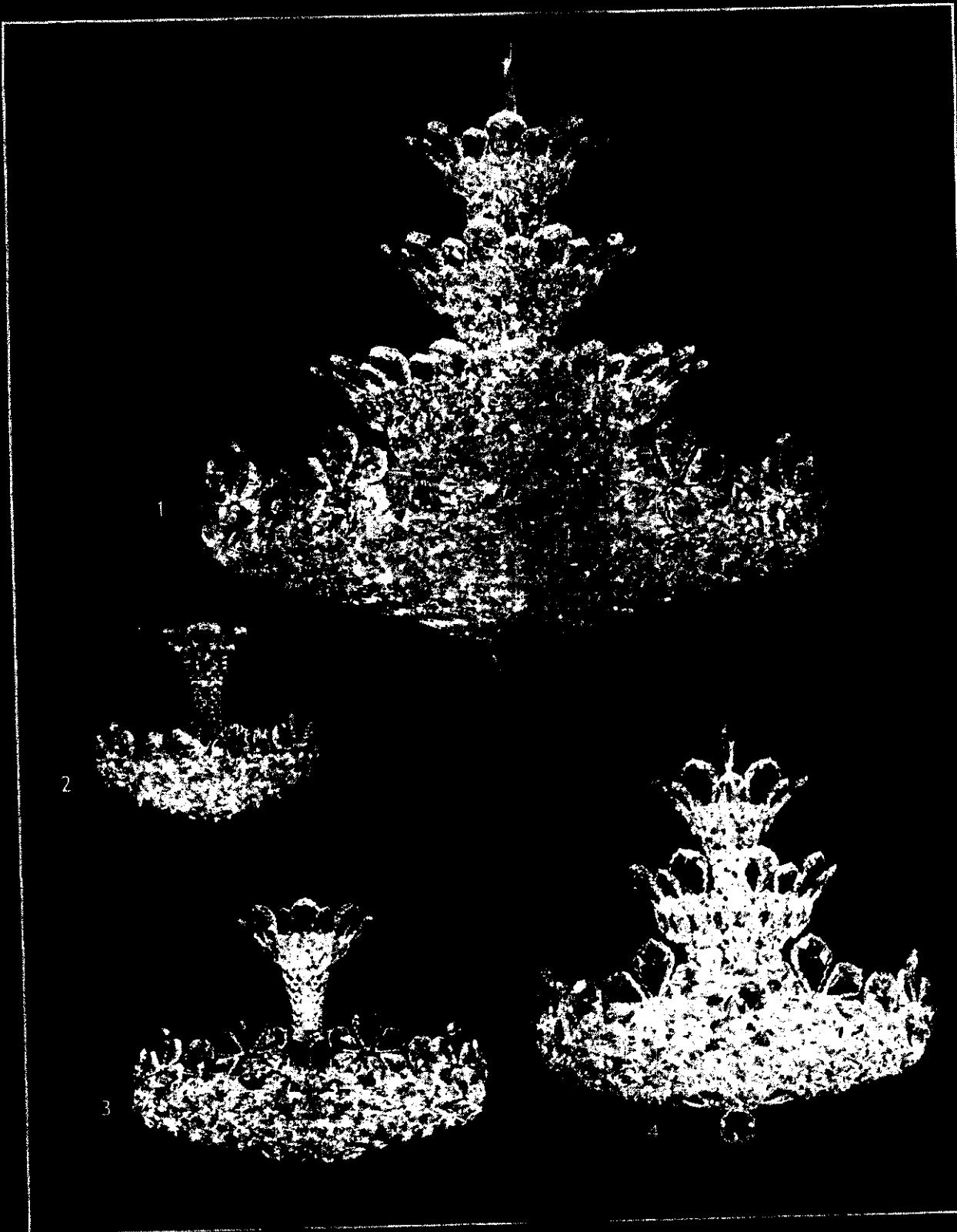
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



No.	Model No.	D	L	No.	Model No.	D	L
1	HC 82041 B	24	18	3	HC 82041 C	13	21
2	HC 82041 D	19	4	4	HC 82041 E	20	28

N S P O T C R S P A E 21



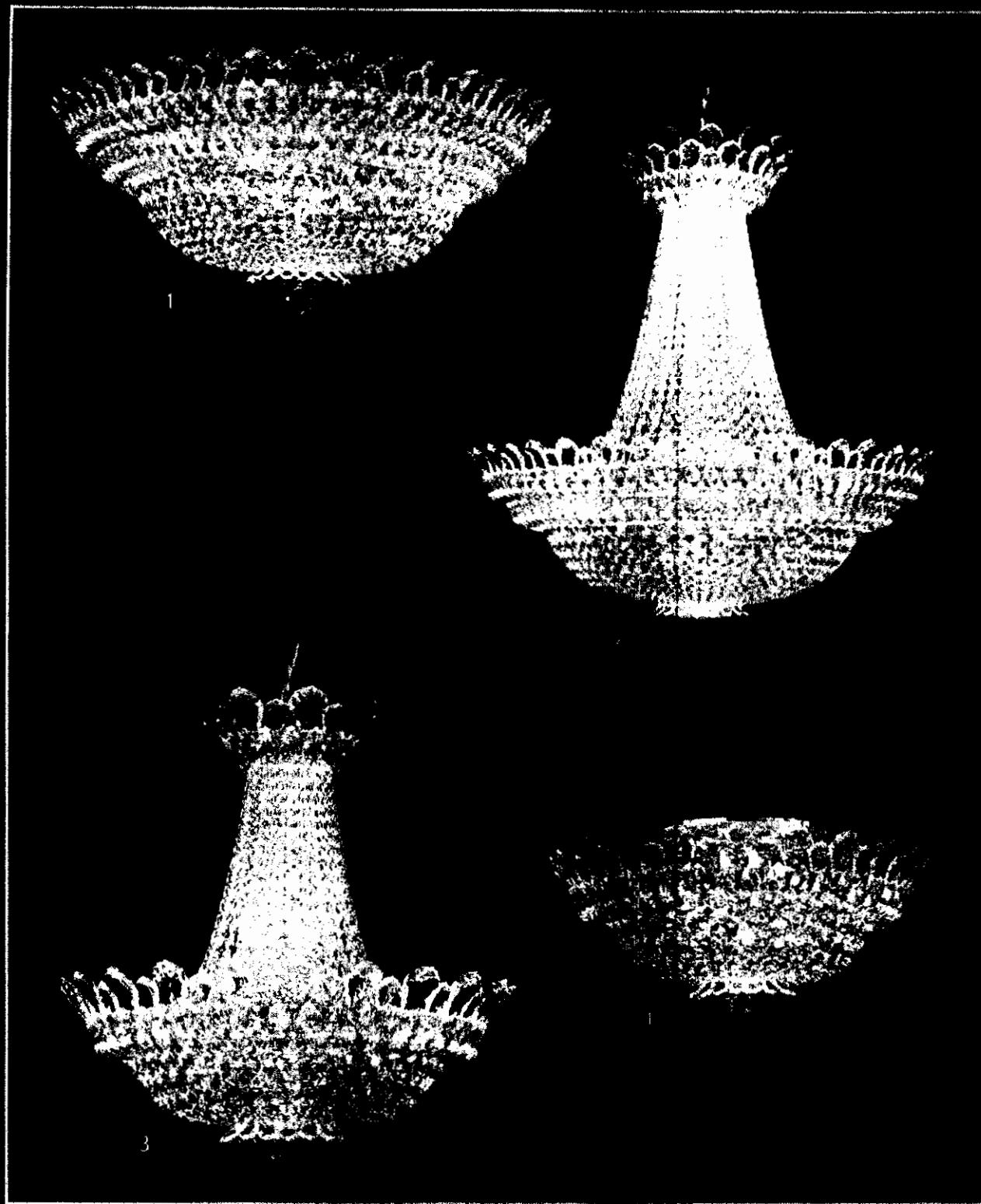


No.	Model No.	H	L	Model No.	D	R	L
1	HC 82044 A	28	24	82044 C	16	13	8
2	HC 82044 W	11	2	82044 B	20	19	15



22  
KODAK SAFETY FILM

PRINTS BY KODAK SAFETY FILM



No.	Model No.	D	H	L	No.	Model No.	D	H	L
1	HC 32043 A	19	11	9	2	HC 32043 A	41	52	26
1	HC 32043 A	32	14	12	3	HC 32043 B	24	32	24
1	HC 32043 A	41	18	18	4	HC 32043 B	24	11	10
2	HC 82043 A	32	19	20					

N S I O U C R S I N L

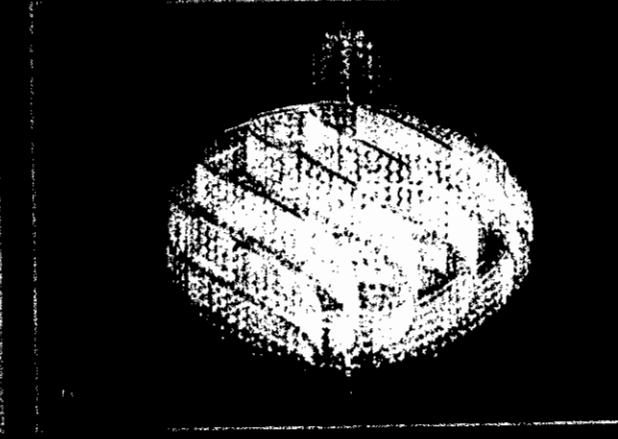
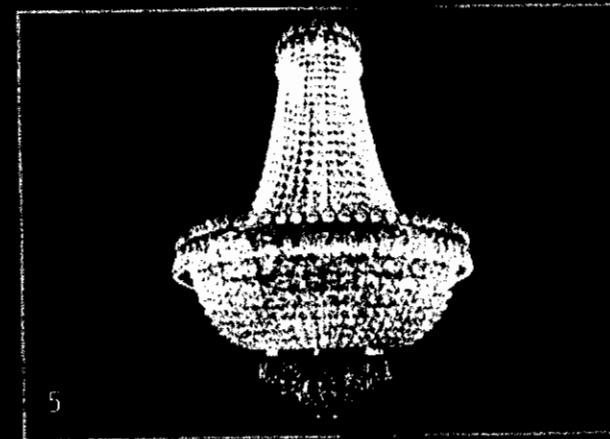
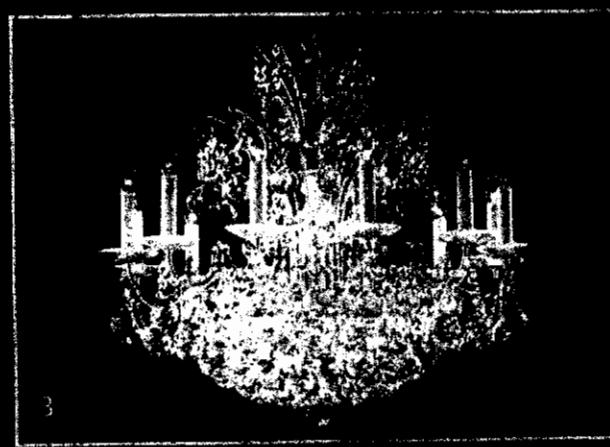
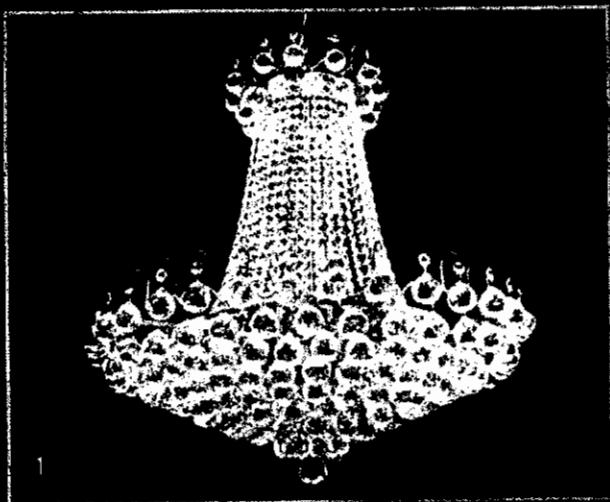
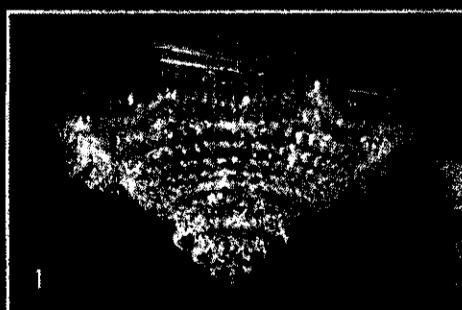


FIG.	MADE IN U.S.	H	L	FIG.	MADE IN U.S.	H	L
1	HC 17965	22	10	2	HC 17963	24	16
3	HC 17964	26	12	4	HC 17962	24	30
5	HC 17963	28	14	6	HC 17962	26	30
7	HC 17964	32	18	8	HC 17962	30	60
9	HC 17967	22	8	10	HC 17961	18	20
11	HC 17969 A	32	18	12	HC 17965	22	21

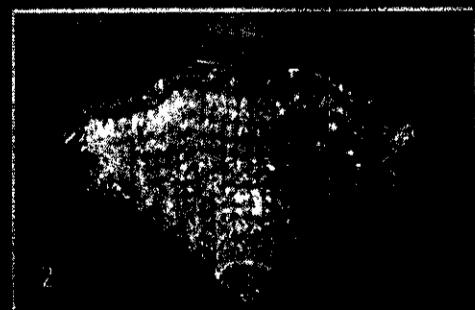


© 1988  
S. L. STUDIO  
1 R

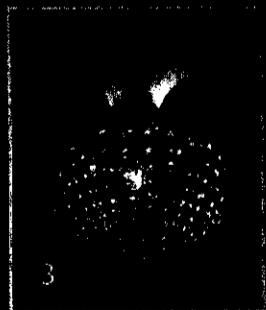
© 1988  
S. L. STUDIO  
1 L



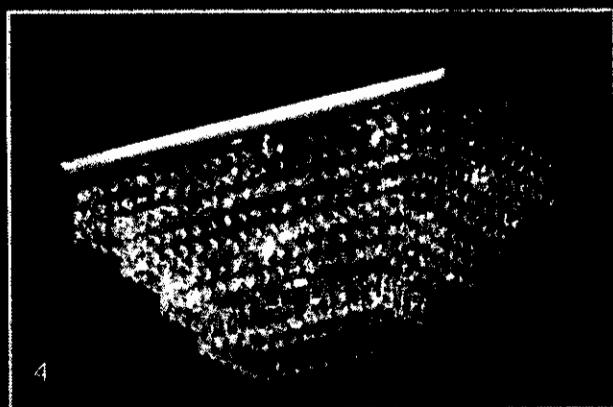
1



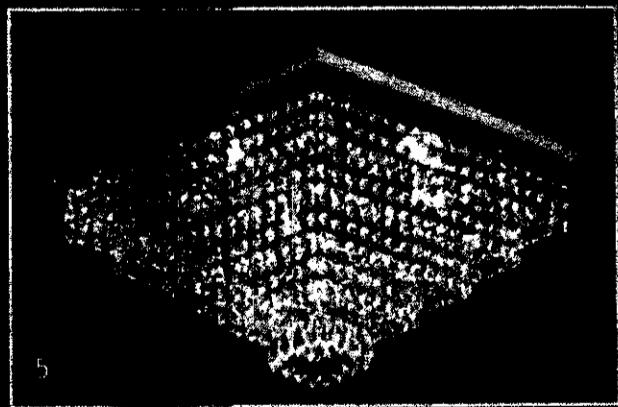
2



3



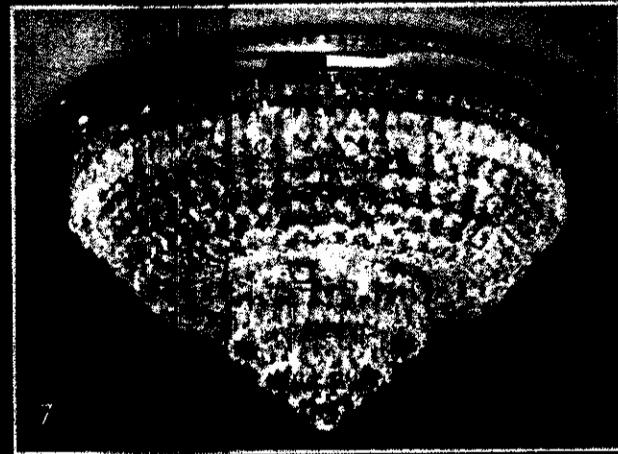
4



5



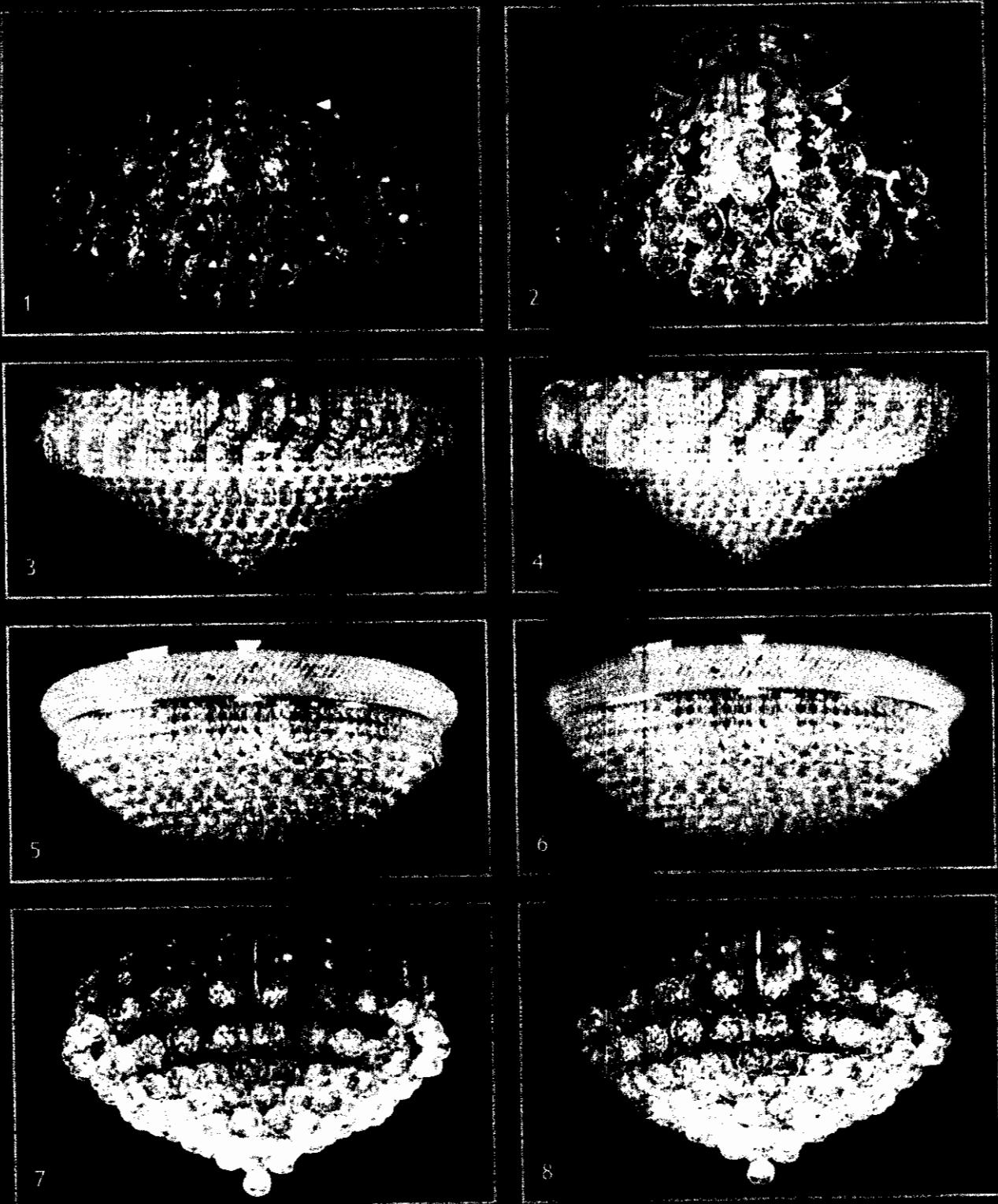
6



7

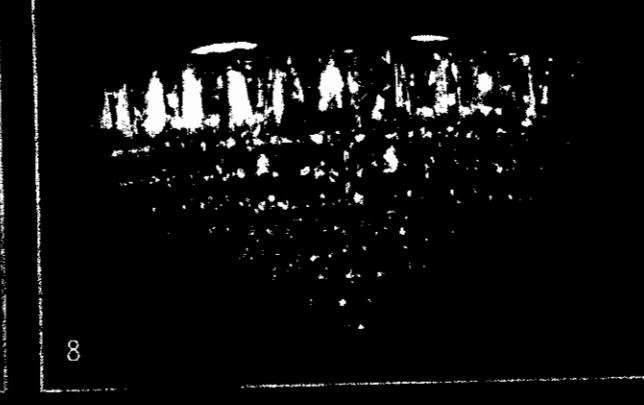
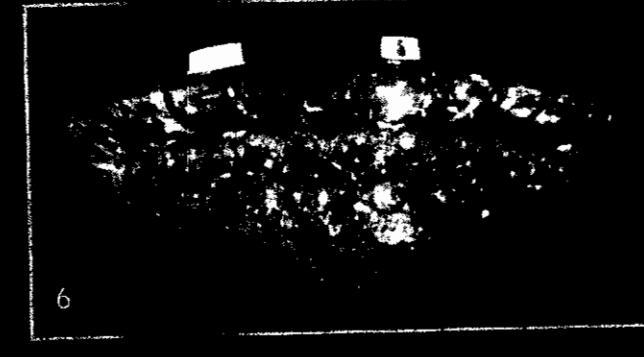
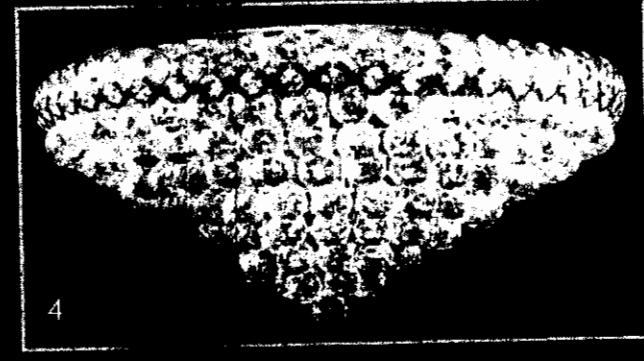
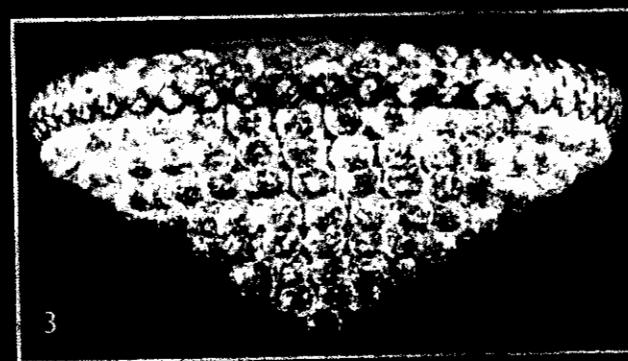
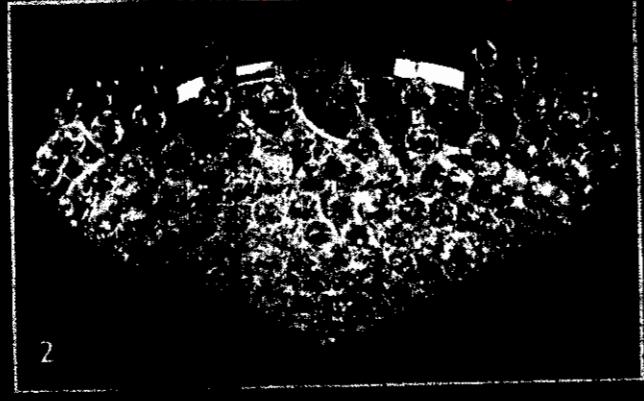
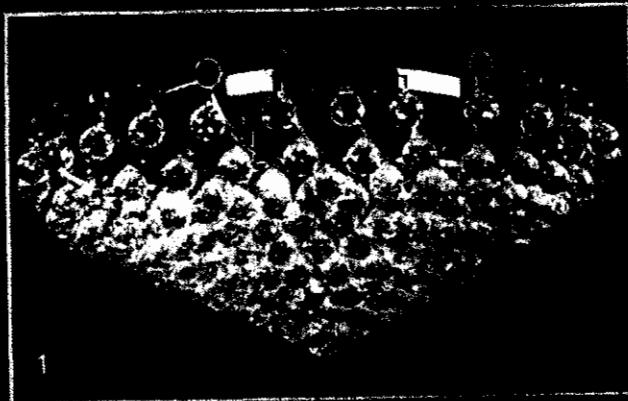
No.	Model No.	D	R	L	No.	D	R	L
1	HC 5612/50	26	15	11	3	HC	15	14
1	HC 5612/70	28	15	11	5	HC	15x30	15x15
1	HC 5612/90	35	15	23	5	HC	50x60	20x24
1	HC 5612/105	41	15	29	5	HC	50x80	21x31
2	HC 5617/50	20	14	10	6	HC	15	16
2	HC 5617/70	28	14	14	6	HC	50	20
2	HC 5617/90	35	15	22	6	HC	50	24
2	HC 5617/105	41	15	28	6	HC	70	28
3	HC 922/20	26	12	1	6	HC	80	21
3	HC 922/23	29	13	1	7	HC	90	16
3	HC 5613/50x30	20x30	12	5	7	HC	100	20
4	HC 5613/40x60	10x60	13	9	7	HC	60	20
4	HC 5613/90x50	35x50	17	12	7	HC	70	25
4	HC 5613/120x60	47x60	21	15	7	HC	80	25
4	HC 5613/140x70	45x70	21	18				

1	2	3	4	5	6	7
HC						
15	15	15	15	15	15	15
14	14	14	14	14	14	14
10	10	10	10	10	10	10
23	23	23	23	23	23	23
29	29	29	29	29	29	29
28	28	28	28	28	28	28
21	21	21	21	21	21	21
16	16	16	16	16	16	16
13	13	13	13	13	13	13
1	1	1	1	1	1	1



1. *Posterior view*  
2. *Posterior view*  
3. *Posterior view*  
4. *Posterior view*  
5. *Posterior view*  
6. *Posterior view*  
7. *Posterior view*  
8. *Posterior view*





No.	Model No.
1	HC 18230
2	HC 18230
3	HC 23170
4	HC 23170

D

H

L

No.

0

D

H

L

5

2

4

6

9

6

1

4

5

9

7

1

4

13

8

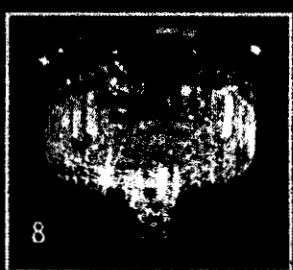
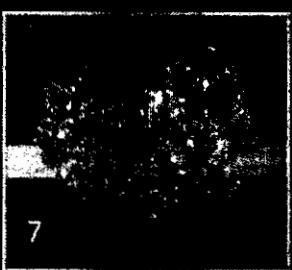
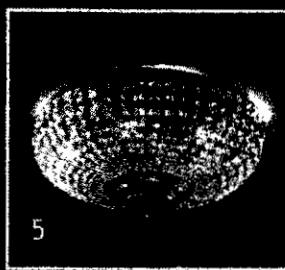
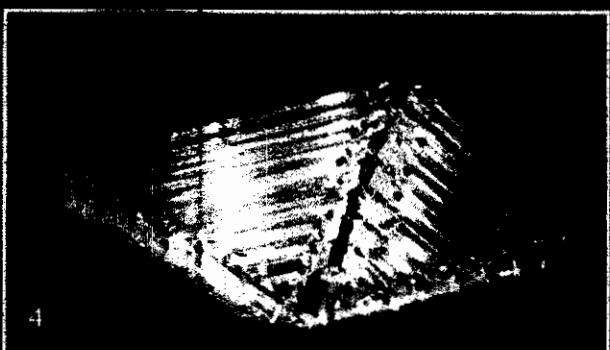
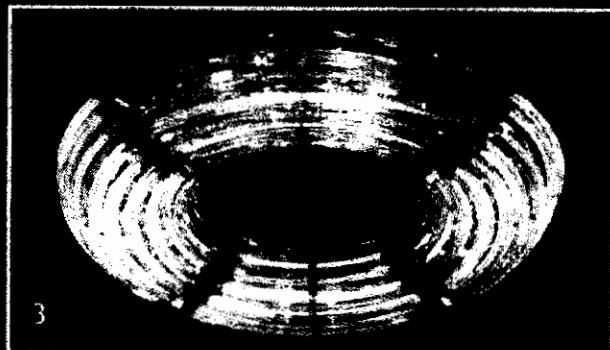
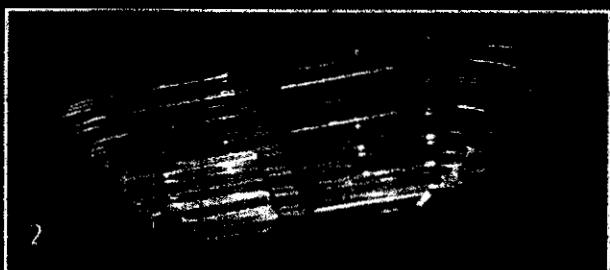
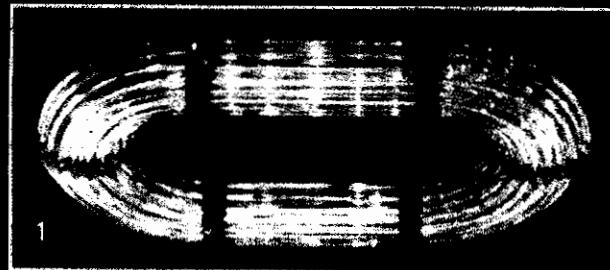
1

4

9

N S E O C R T D F V Y U

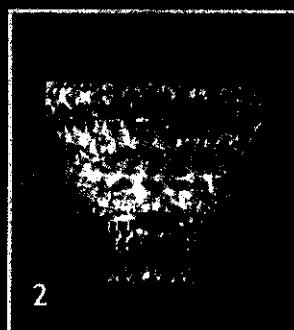




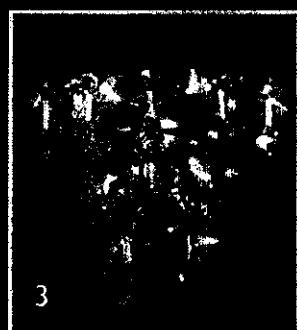
No.	Model No.	D	H	L	No.	Model No.	D	H	L
1*	HC 6900/101/6 (oval)	39	9	24	6	HC 6903/125	49	27	25
2*	HC 6901/92/4	36x17	11	4	6	HC 6903/150	59	30	30
2	HC 6903/82/2	32x13	7	2	7*	HC 6903/30	12	12	2
3*	HC 6900/101/4 (round)	35x39	5	36	7	HC 6903/40	16	14	3
4	HC 7100/38	15x15	6	4	7	HC 6903/50	20	16	5
4*	HC 7100/49	19x19	7	6	7	HC 6903/60	24	18	6
4	HC 7100/59	23x20	9	6	7	HC 6903/80	31	21	9
5*	HC 923/68	28	12	5	8*	HC 6905/30	12	12	3
6*	HC 923/38	10	6	3	8	HC 6905/40	16	12	6
6	HC 923/48	19	10	4	8	HC 6905/50	20	12	7
6	HC 923/58	23	12	5	8	HC 6905/60	24	12	9
6	HC 923/68	27	13	5	8	HC 6905/70	28	13	11
6	HC 923/83	33	17	9	8	HC 6905/80	31	13	13
6	HC 923/110	43	24	16					



1



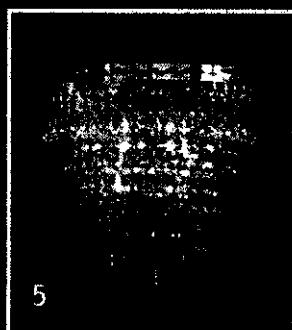
2



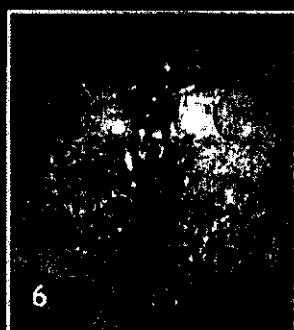
3



4



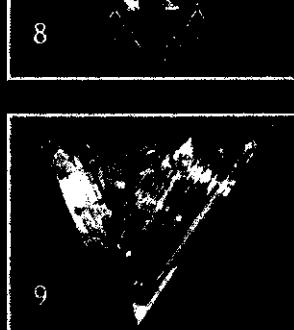
5



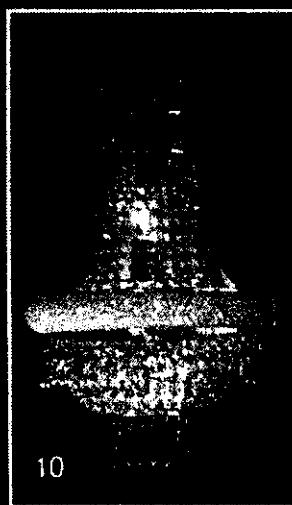
6



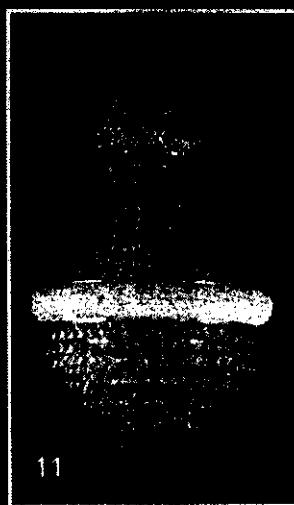
7



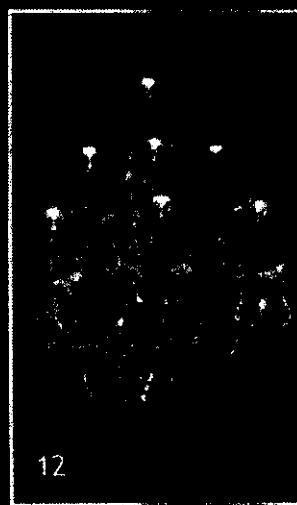
8



10



11



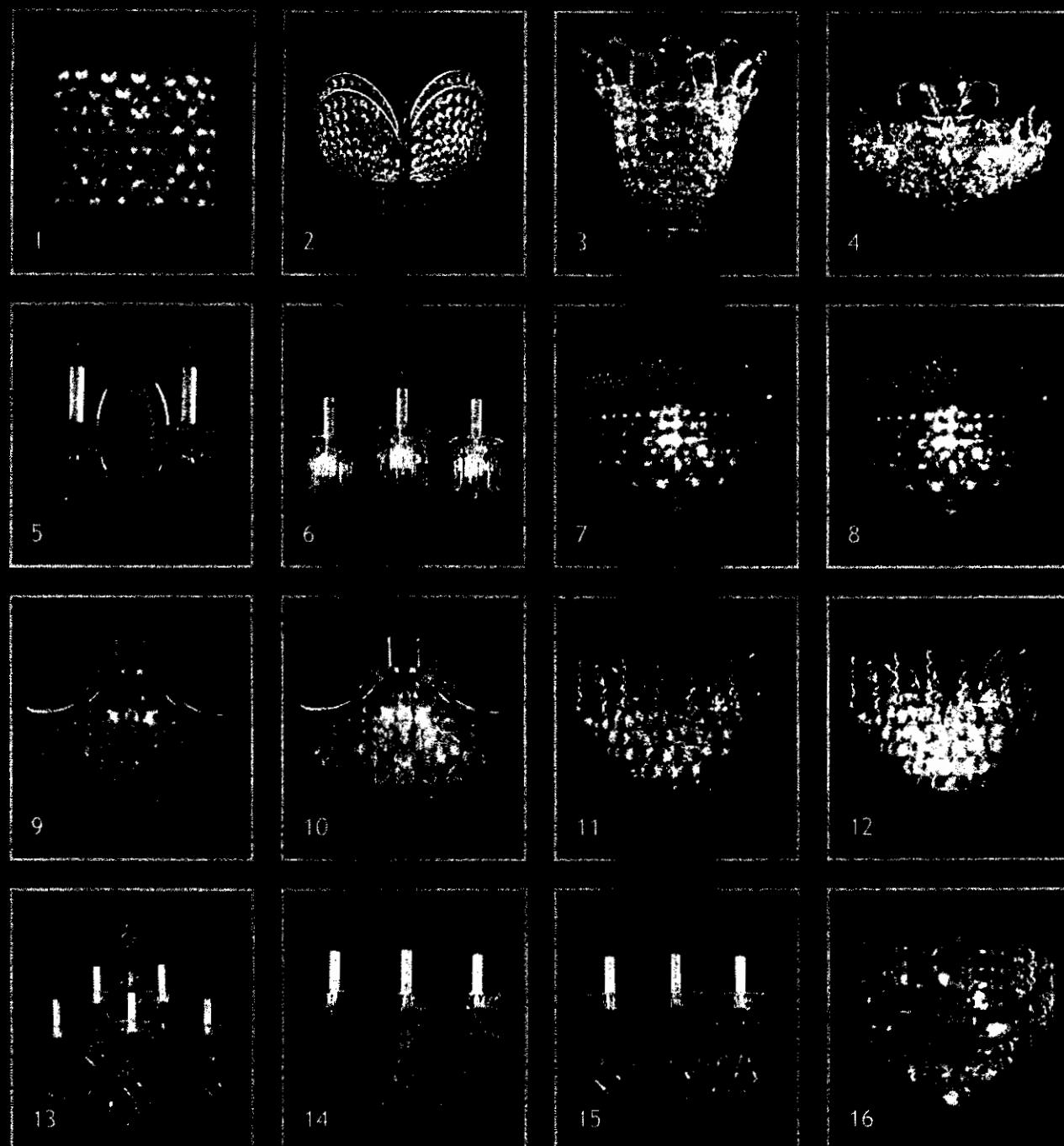
12

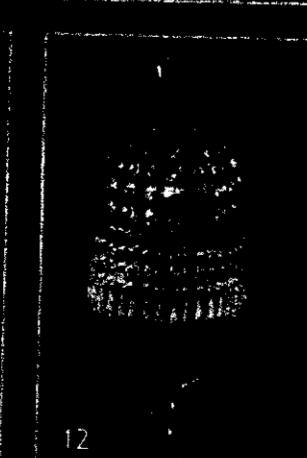
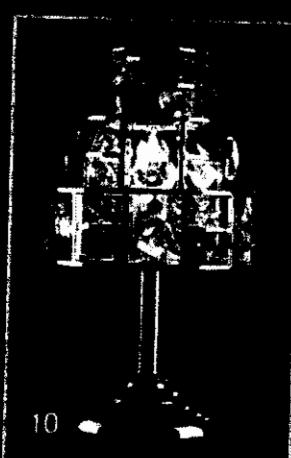
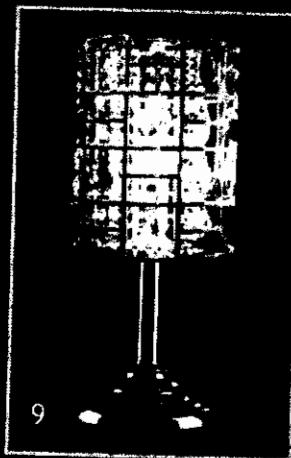
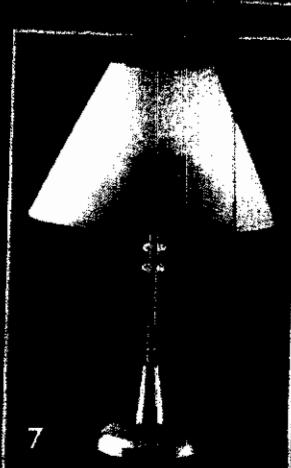
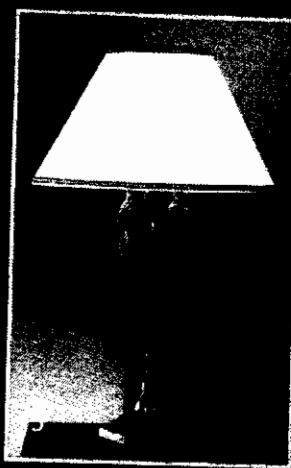


13

No.	Model No.	D	H	L	No.	Model No.	D	H	L
1*	HC 6031/26	10	8	2	8*	HC 7031/26	10	16	2
2*	HC 5167/25	10	7	2	8	HC 7031/26	10	17	3
2	HC 5167/35	14	11	4	9*	HC 7031/26	14	11	2
3*	HC SCH/1	8	7	1	10	HC 4031/30	15	22	3
3	HC SCH/2	9	10	2	11	HC 6031/30	14	21	2
4*	HC 2004/2	10	6	2	12	HC 4031/30	17	28	7
5*	HC 1502/40	10	10	2	12	HC 4031/30	23	20	9
6*	HC 832/25	10	10	2	13*	HC 5031/30	24	4	3
6	HC 832/28	11	10	2	13	HC 7031/20	31	4	5
7*	HC 6025/30	13	6	3					

S S T O I P C R T V T





No. Model No.

1 HC 156975-1

2 HC 4059720

3 HC 23298

4 HC 92273

5 HC 03200

6 HC 03140

9

18

8

11

9

14

No. Model No.

7 HC 156975-1

8 HC 4059720

9 HC 23298

10 HC 92273

11 HC 03200

12 HC 03140

10

8

11

9

10

12

A S T O R R T A

31



No. Model No.

D

H

L

1 HC 03141

16

28

2

2 HC 03001

20

70

1

3 HC 03199

17

69

2

4 HC 03108

21

62

1

No. Model No.

D

H

L

5 HC 03177

14

71

6

6 HC 03115

16

72

8

7 HC 03141

24

66

8

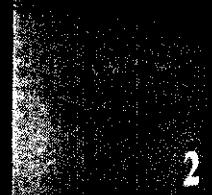
8 HC 03125

20

68

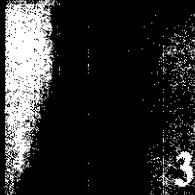
6

1 VERSAILLES GOLD



2

SATIN GOLD



3

VERSAILLES SILVER



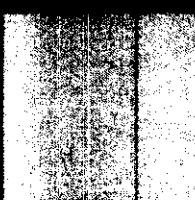
SATIN SILVER

5 BRUSH GOLD



6

BRUSH GOLD



7

METALLIC SILVER

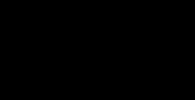


METALLIC SILVER

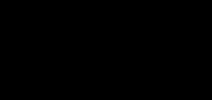


9

ANTI BRONZE



10



11

12

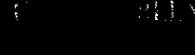


13



14

LIGHT ANTI BRASS



15

16

ANTIQUE COPPER



17

RUSTY RED



18

ANTIQUE BRASS

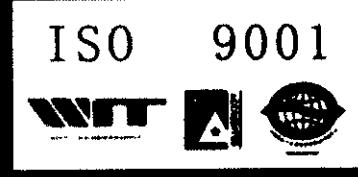


19

20

CHAMFER

CHAMFER





**EXHIBIT K**

Asfour Crystal Catalog Page	Infringement Count	Asfour Crystal Product No.	Schonbek Catalog(s)	Schonbek Catalog Page No(s).	Schonbek Product No.	Schonbek Product Line	Intellectual Property Coverage
17	1	HC 82059 B	2002	275	4825	Contessa	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977
17	2	HC 82059 C	2002	276	4822	Contessa	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977
18	3	HC 82131	2002	58	5012-049072	La Scala	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977
19	4	HC 82127 A	1999	94	5782	Bordeaux	U.S. Copyright No. VA 1-250-977
19	5	HC 82127 A	1999	63	2782	Versailles	U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,222,805 U.S. Design Patent No. D335,362 U.S. Design Patent No. D336,537
19	6	HC 82161	2002	122	5755	Victorian	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977
19	7	HC 82086	2002	230	5708	Hamilton	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,460,269 U.S. Utility Patent No. 5,873,652
21	8	HC 82041 B	2002	25	5848	Trilliane	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,109,325 U.S. Utility Patent No. 5,222,806
21	9	HC 82041 D	2002	25	5846	Trilliane	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,109,325 U.S. Utility Patent No. 5,222,805
21	10	HC 82041 W	1999	25	5845	Trilliane	U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,109,325
21	11	HC 82041 C	2002	25	5847	Trilliane	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,109,325 U.S. Utility Patent No. 5,222,805
22	12	HC 82044 A	2002	20	5856	Trilliane	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,109,325 U.S. Utility Patent No. 5,109,325
22	13	HC 82044 W	1999	21	5850	Trilliane	U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,109,325 U.S. Utility Patent No. 5,222,805
22	14	HC 82044 C	2002	20	5855	Trilliane	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,109,325
22	15	HC 82044 B	2002	21	5851	Trilliane	U.S. Copyright No. VA 1-250-219

Asfour Crystal Catalog Page	Infringement Count	Asfour Crustal Product No.	Schonbek Catalog(s)	Schonbek Catalog Page No(s).	Schonbek Product No.	Product Line	Intellectual Property Coverage
155	153	Page 153 of 153					
16	17	HC 32043 A	2002 1999	33 31 (Custom)	5877	Trilliane	U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,109,325 U.S. Utility Patent No. 5,222,805
17	18	HC 82043 A	2002 1999	29 27	5874	Trilliane	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,109,325 U.S. Utility Patent No. 5,222,805
18	19	HC 32043 B	2002 1999	32 30	5871	Trilliane	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977 U.S. Utility Patent No. 5,109,325 U.S. Utility Patent No. 5,222,805
19	20	HC 82059 A	1999	195	4823	Contessa	U.S. Copyright No. VA 1-250-977 U.S. Design Patent No. D335,362 U.S. Design Patent No. D336,537
20	21	HC 82041 W	2002	27	5876	Trilliane	U.S. Copyright No. VA 1-250-219 U.S. Utility Patent No. 5,109,525 U.S. Utility Patent No. 5,222,805
21	22	HC 82044 W	2002	21	5886	Trilliane	U.S. Copyright No. VA 1-250-219
22	23	HC 82161 W	2002	123 321	5742	Victorian	U.S. Copyright No. VA 1-250-219
23	24	HC 22129	2002	97 325	5018	Dorchester	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977 U.S. Design Patent No. D335,362
24	25	HC 22131	2002 1999	68 322 57	5003	La Scala	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977
25	26	HC 3022/3	2002	135 325	5602	Maria Theresa	U.S. Copyright No. VA 1-250-219
26	27	HC 3022/3	2002 1999	69 322 56	5002	La Scala	U.S. Copyright No. VA 1-250-219 U.S. Copyright No. VA 1-250-977

Case 2:06-cv-05910-JFB-ETB Document 1-3 Filed 07/10/06 Page 1 of 155